Alcohol, drugs and crime: a study of juveniles in detention

Jeremy Prichard
Jason Payne

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Disclaimer

This research report does not necessarily reflect the policy position of the Australian Government.

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Terminology

Amphetamine – unless otherwise noted, refers to the illegal use of amphetamine type substances.

Current drug user – juveniles who self reported any drug use (regardless of frequency) in the six months prior to their current period of detention.

Current regular drug user – juveniles who self reported being a regular user of a drug in the six months prior to their current period of detention.

Daily drug user – juveniles who self reported using a drug at least daily in the six months prior to their current period of detention.

Drugs – when referring to the results of the DUCO juvenile study, the term 'drugs' refers to illicit drugs including inhalants, but not including alcohol. When referring to other literature, the term 'drugs' takes the meaning intended by the authors that other research.

Juvenile detainee – any respondent aged between 10 and 17 years.

Regular offender – juveniles who self-report 'often' engaging in an offence.

Substances – alcohol and other drugs including inhalants.

Temporal order – the order in which events occur over time.

Executive summary

In 2001 the Australian Institute of Criminology (AIC) commenced a major study of the drug use careers of adult male and female prisoners, and juvenile detainees in Australia. This research was funded by the Australian Government Attorney General's Department (AGD). The results of the Drug Use Careers of Offenders (DUCO) adult male study were released in 2003 (Makkai & Payne 2003) and the DUCO adult female results were released in 2004 (Johnson 2004). The primary focus of this report is on the drug and alcohol use and criminal behaviours of 371 juveniles aged 10 to 17 years who were in detention centres in all Australian jurisdictions in 2003-2004.

Although not a national census, the profile of the juveniles interviewed for this study was similar to the Australian juvenile detainee population recorded in the 2003 national census in Statistics on Juvenile Detention in Australia: 1981-2003. (Charlton and McCall 2004). One exception was that the present study interviewed a slightly higher proportion of Indigenous youths (59%) than is typically found in the nation's detention centres.

Overall, the juveniles in this study reported committing a variety of offences at a very high frequency. The majority reported chronic, persistent and multiple drug use.

Demographic and criminal offending profile

The general demographic profile of juvenile offenders in this study indicates that:

- the majority were males (93%) with an average age of 16 years;
- just over half (59%) identified as Indigenous;
- three quarters (76%) had stopped attending school before entering detention, and had left school at an average age of 14; and
- just over half (53%) were living at home with their parents prior to detention.

In terms of criminal offending, the most serious charge leading to current detention was most likely to be for a property offence (58%), followed by a violent offence (37%). In terms of self-reported offending, almost all juveniles had engaged in property offending (98%), whilst 84 per cent had engaged in violent offending.

By offence type, the lifetime prevalence was:

- 86 per cent for break and enter;
- 82 per cent for stealing (without break in);
- 80 per cent for vandalism and motor vehicle theft;
- 75 per cent for trading in stolen goods;

- 73 per cent for physical assault;
- 55 per cent for robbery; and
- 26 per cent for fraud or forgery.

The majority of juveniles in this study (88%) had also engaged in drug related offending, although more juveniles reported buying drugs (85%) than selling them (55%).

Using the self-reported regular offending data, it was possible to categorise the juvenile detainees into a three-staged hierarchical typology – regular violent offenders, regular property offenders and non-regular offenders. Comparative analysis by offender type indicates that those juveniles detainees who had progressed to regular violent offending were more serious not only in terms of their regular offending, but drug use as well. Non-regular offenders were least likely to report the use of illicit drugs and alcohol, across most drug types.

Substance use

The juveniles interviewed for this study reported substantial involvement with alcohol and a variety of illicit drugs. In the six months before entering detention, 71 per cent of youths used one type of substance regularly, and 29 per cent used more than one type regularly.

In terms of types of substances regularly used:

- 63 per cent used cannabis;
- 46 per cent used alcohol;
- 20 per cent used amphetamines;
- eight per cent used ecstasy; and
- seven per cent used inhalants.

Non-Indigenous juveniles were more likely than Indigenous juveniles to have tried amphetamines and ecstasy. Generally, however, the juveniles' substance using patterns were very similar regardless of Indigenous status. This includes use of alcohol and inhalants.

Links between drugs and crime

The results of this study provide evidence of a connection between drug and alcohol use and criminal offending. For example:

- 70 per cent of youths were intoxicated at the time of their last offence: 48 per cent were under the influence of drugs and 46 per cent were under the influence of alcohol;

- of those who reported being under the influence of drugs at the time of their offence, 75 per cent indicated that they were intoxicated by cannabis and 39 per cent by amphetamines;
- 44 per cent of burglars attributed their crimes to the need to obtain money to buy drugs;
- almost one third of youths who had been charged with assaulting others attributed the offences to being drunk or high at the time of the offence;
- compared with non-regular offenders, regular violent and regular property offenders were three times more likely to be regular users of alcohol and twice as likely to be regular users of cannabis.
- 29 per cent of regular violent offenders regularly used amphetamines, compared with 17 per cent of regular property offenders and five per cent of non-regular offenders;
- 67 per cent used one or more substances daily. Of this group, 72 per cent reported committing crime on between three and seven days each week. This rate of offending was reported by 34 per cent of youths who used substances once a monthly or less; and
- Indigenous and non-Indigenous youths used similar substances at similar frequencies, although non-Indigenous detainees were significantly more likely to have used amphetamines and ecstasy.

While the precise link between substance abuse and criminal offending is not known, the available evidence suggests that substance use exacerbates criminal offending. This study finds that regular offenders tend to begin experimenting with substances at an earlier age than non-regular offenders.

A number of youths attributed their criminal offending directly to their use of drugs and alcohol. This study uses a conservative measure of causation for juveniles who stated that the reason they committed the offence was related to drugs or alcohol. This measure is a combination of daily substance use or intoxication at the time of the current offence. In total, 33 per cent of youths causally attributed their offending to their drug and alcohol abuse. Indigenous youths were more likely to attribute their criminal offending to substance use (35%) than non-Indigenous youths (29%). The juveniles attributed their offending to substance use at rates similar to the adults interviewed for the DUCO adult male study.

Temporal order of substance use and offending

Whether substance use leads to crime, or the reverse is true, has been the subject of much debate. Much of the research focusing on male offenders has found that criminal activity tends to precede drug use, but that offending, particularly property crime, escalates as drug use increases. Comparable results were found for juveniles in this study. Crime began before substance use for half of the youths. A quarter of youths began using substances within a year of commencing criminal behaviour. The onset of regular property offending occurred within months of the development of regular substance use behaviours.

Indigenous offenders

More than half (59%) of the juveniles interviewed for this study identified as Indigenous. Comparative analysis by Indigenous status revealed that, compared with non-Indigenous juveniles, Indigenous juveniles:

- were more likely to be detained for burglary, and more likely to self-report a lifetime history of burglary;
- were equally likely to report the lifetime prevalence and daily use of cannabis and alcohol, but less likely to have used amphetamines and ecstasy;
- were equally likely to have used inhalants, but first used inhalants at a much younger age; and
- were equally likely to attribute their criminal activity to drug use.

Risk factors for drug use and offending

This study provides many opportunities to examine a range of risk factors for drug and alcohol abuse and offending. Results show that:

- about one third of juveniles had endured violent or emotional abuse, and one fifth had been left alone for long periods;
- 42 per cent of youths were not living with their parents at the time of their last offence;
- two thirds of youths reported that a member of their family was abusing substances while they were growing up;
- one in 10 youths did not continue their education past grade six, and 75 per cent ended their education in grade seven, eight or nine;

- what little schooling the youths did complete was punctuated by very high rates of truancy, with almost half of juveniles regularly suspended; and
- six in 10 youths had been expelled from school.

Policy implications

Strong connections were found between the risk factors, including childhood abuse and neglect, drug and alcohol abuse among family members and troubled school education. All are highly interrelated and important correlates of criminal offending and high frequency substance abuse. These results highlight that breaking the cycle of drugs and crime will be achieved by:

- whole-of-government approaches and inter-agency cooperation to ensure the range of factors that can lead to drug use and offending are addressed;
- the prevention of drug dependency through rapid intervention with drug users and effective drug treatment programs;
- early interventions with families, particularly with juveniles whose family members use drugs; and
- programs specifically targeted at juveniles and their personal histories and drug use patterns.

To facilitate these policy responses, it is increasingly important that criminal justice agencies employ a diverse range of detailed screening and assessments tools to identify juveniles at high risk of continued drug use and offending. Identifying daily drug use, poly-substance abuse and family substance abuse as early as possible are high priorities.

Furthermore, a key theme of this report is the need for early intervention programs, and the results highlighted here demonstrate the importance if interventions with high risk youths in the late primary school years and early high school years. Early interventions can occur in a range of different settings – at school, at first appearance in court, at police diversion, at first contact with family crisis agencies – although a coordinated effort across all these areas is likely to be the most successful.

1 Overview of substance use among juveniles in Australia

Introduction

This report is the final report from the Drug Use Careers of Offenders (DUCO) research project managed by the Australian Institute of Criminology (AIC). DUCO has interviewed incarcerated adults and juveniles in detention centres. The primarily focus has been on the relationships between criminal careers and alcohol and drug use while considering other risk factors, including family drug use, childhood exposure to violence and mental health. The first two phases of the study focused on adult males and adult females. The results of these studies have been released (Makkai & Payne 2003; Johnson 2004). This report summarises the results of the third phase, which concentrated on juveniles in detention.

It is almost axiomatic to state that substance abuse is considered to be a major contributing factor to crime (Chaiken & Chaiken 1990). Estimates of the cost of alcohol and drug-related crime to the Australian community range from $1.96 billion (Mayhew 2003) to over $4 billion per year (Collins & Lapsley 2002). The cost of both illicit and licit drug use in 1998/99 was placed at $34.4 billion (Collins & Lapsley 2002).

Australian governments have responded to increased community concerns over the harms caused by drugs with the development of the National Drug Strategy (NDS). The NDS has drawn on bipartisan political support, the cooperation of state and federal governments and involvement from the non-government sector. Among other things, core NDS strategies attempt to prevent the uptake of harmful drug use and reduce the harmful effects of illicit and licit drug use. A major aspect of the NDS is the Australian Government's National Illicit Drug Strategy (NIDS). Initiatives funded under NIDS include DUCO and the Drug Use Monitoring in Australia (DUMA), also managed by the AIC. DUCO and DUMA represent the only cross-jurisdictional studies of the relationships between crime and drug abuse.

Prevention of the onset of drug use is a clear priority in current policy strategies. It is listed as the first of eight priorities in the 2004-2009 NDS. Similarly, the latest phase of NIDS, unveiled in 2003-04, highlighted the importance of research into prevention. Prevention refers not only to the prevention or delay of the onset of drug use, but also the reduction of harm associated with drug use (Loxley et al. 2004). In recent years, various prevention strategies have been centred nationally on interventions for children and young people, as evidenced by reports such as Pathways to Prevention (National Crime Prevention 1999) and The Prevention of Substance Use, Risk and Harm in Australia (Loxley et al. 2004). The importance of preventing juvenile drug use cannot be overstated considering its links with deviancy and adult substance abuse, as well as serious physical and mental health problems (Department of Juvenile Justice, 2003; McGee et al. 2000). Arguably, there is more at stake in developing effective prevention strategies for youth due to the special criminogenic risks associated with juveniles' contact with the criminal justice system and juvenile incarceration (Farrington 1977; Kraus 1978).

Given the emphasis on prevention it is surprising that, to date, knowledge on young offenders' drug use has been primarily based on overseas studies (see for example Pudney 2002; Killias & Ribeaud 1999). Comparatively little research has been conducted nationally, with notable exceptions including work by Putnins (2001) and Lennings et al. (2003). Although the adult male and adult female DUCO reports include findings relating to early life experiences, clear advantages are to be gained from focusing on a juvenile population. For example:

- generational differences in habits of drug use have been found in several studies (Lynskey & Hall 1998);
- alcohol and drugs may act in a more potent fashion upon juveniles (LeBeau & Mozayani 2001);
- young offenders typically display higher risk-taking behaviours than adult offenders (Weiner & Wolfgang 1989); and
- cognitive and moral development may mean that the reasoning underlying juvenile crime and drug use is more simple than in adult crime (Prichard & Burton-Smith 2004; Kohlberg 1976).

In the past 13 years, most Australian juvenile justice systems have been significantly altered for the purposes of, among other things, reducing juvenile court appearances and, ultimately, juvenile detention rates (Daly & Hennessey 2001). As noted in Chapter 2, rates of juvenile detention have fallen steadily in recent years, meaning that youths who are detained represent the most acute offenders in their age group. This is because either they have committed a small number of grave crimes, or because they have very long criminal histories.

How have drug use, criminal behaviour and various risk factors interacted to affect the life trajectories of these young people? The DUCO juvenile study addresses this question with empirical evidence. The results suggest directions for how best to respond to juvenile detainees and how to tackle drug use among all Australian youth. The study is based on surveys with 371 youths aged 10 to 17. The size of the sample is similar to that used in the adult female study (n=470). (The adult male cohort numbered 2135 participants.) However, unlike the adult studies, the juvenile project incorporated detention centres from every state and territory, providing an important snapshot of youths from across the nation.

This monograph is structured for easy comparison with the DUCO adult female report. The next section of Chapter 1 provides a description of drug use in Australia among the general juvenile population and young detainees. Chapter 2 summarises literature on young people, drugs and crime. Later chapters present the responses of the juvenile participants regarding their drug use, offending behaviour and connections between the two. A separate chapter is assigned to Indigenous youth. However, unlike the DUCO adult female study, alcohol use is interwoven with analysis of substance abuse throughout the report. This is because

alcohol use is illegal for persons under the age of 18. Chapter 8 discusses implications for preventing and responding to drug use among young offenders.

National indicators of juvenile drug use

Estimating the prevalence of any crime is always problematic. For example, official police statistics only represent crimes that have been detected and processed through the justice system, reflecting just a fraction of the total rates of crime, once undetected offences are considered.

There are a number of measures of juvenile drug use in Australia. Some of these are presented below to set an important foundation for the rest of the monograph. They give an indication of the extent of drug use among all young people in Australia, as well as youths who have entered the criminal justice system. Clearly, young offenders have much higher rates of drug use than others of the same age. This section of Chapter 1 also highlights a number of deficiencies in the national data currently available. Some are addressed by the DUCO juveniles study.

The key measures of Australian youths' drug use presented here include:

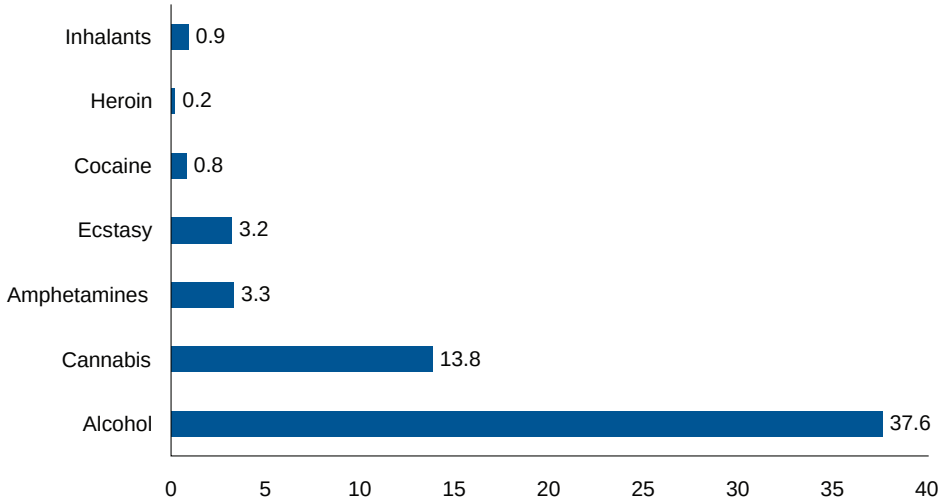
- the National Drug Strategy Household Survey;
- the Australian Government Department of Health and Ageing survey of secondary students' drug use;
- levels of drug use among juveniles detained in police custody;
- Victorian police data on juvenile drug offences; and
- levels of drug use amongst juveniles in detention centres.

National Drug Strategy Household Survey

In the National Drug Strategy Household Survey, a random sample of Australians is interviewed at about three-year intervals on their drug use (AIHW 2005). In 2004, more than 29,000 people aged 12 years and over were interviewed on their drug consumption patterns, and their attitudes and behaviours concerning tobacco, drugs and alcohol.

The age bracket relevant to this report is those aged 12-19 years. Not surprisingly, alcohol was the most commonly used substance. The majority of the youths (37.6%) had consumed at least one full glass of alcohol in the 12 months preceding the survey. Figure 1.1 displays the proportion of youths who reported using other substances.

Figure 1.1: Drug use in previous 12 months, population 12-19 years, 2004 (per cent)



Note: Similar estimates of alcohol use were not provided in the published report
Source: Australian Institute of Health and Welfare, National Drug Strategy Household Survey First Results (2005).

Cannabis was the most commonly reported illicit drug used by 12 to 19 year olds (13.5%), although it was not as widely used as alcohol. Ecstasy and amphetamines had similar rates of use, with just over three per cent of adolescents having used them in the year prior to the survey. About one per cent of youths reported using inhalants or cocaine. Heroin use was very low in this age bracket (0.2 per cent) and injecting drug use was reported by 0.6 per cent of young people.

Generally, adults reported higher rates of substance use in the year preceding the survey. More than 80 per cent reported drinking alcohol. Notably, marijuana use amongst those aged 20 to 29 was 26.7 per cent, and use of amphetamines stood at 21 per cent. The use of inhalants was reported by just 1.3 per cent.

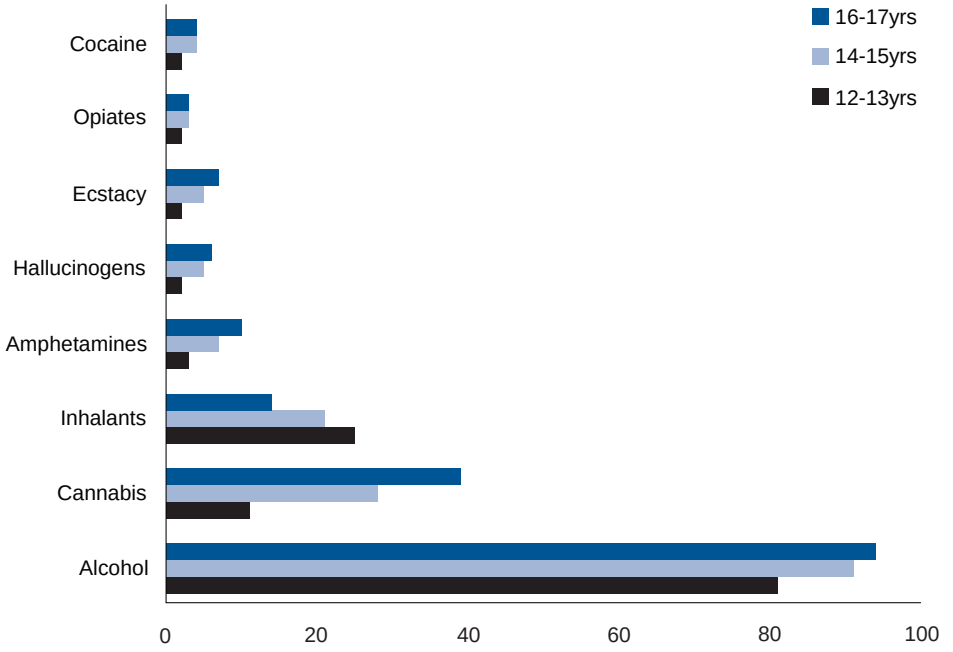
Australian Government survey of secondary students' drug use

The Drug Strategy Branch of the Australian Government Department of Health and Ageing has reported on Australian secondary students' use of over-the-counter and illicit substance use (White & Hayman 2004a). The report was based on data collected in 2002 from 23,417 students aged 12 to 17 years in 363 schools across Australia. Although these data are similar to the National Drug Strategy Household Survey, they indicate different patterns of drug use amongst three age brackets: 12-13, 14-15 and 16-17.

Cannabis was the most commonly used illicit substance, with 25 per cent of all secondary students reporting use at some time in their life. This figure stood at 39 per cent for 16 to 17 year-olds. Four per cent of all secondary students had some experience with hallucinogens. The vast majority (93%) had never used hallucinogens or amphetamines. Similarly, only three per cent of students had ever used cocaine or opiates, such as heroin or morphine. Only five per cent of students had used ecstasy.

Figure 1.2 presents the rates of use by students in the three age brackets. Drug and alcohol use appears to increase as youths age, with one exception being the use of inhalants. Twenty-five per cent of students aged 12 to 13 had used inhalants, compared with 21 per cent of those in the 14-15 age bracket and 14 per cent of the 16-17 bracket.

Figure 1.2: Substances ever used, by students aged 12 to 17 (per cent)



Source: White & Haymen (2004a)

A second report specifically described the use of alcohol by Australian students (White & Hayman 2004b). Experience with alcohol was high, with use becoming more common as age increased. Thirty-one per cent of 15-year-olds and 44 per cent of 17-year-olds consumed alcohol at levels higher than those recommended by National Health and Medical Research Council guidelines. Spirits were the most common type of alcohol consumed by current drinkers of all persons 17 years or younger. Additionally:

- 46 per cent of all students saw themselves as non-drinkers;
- 25 per cent thought they were occasional drinkers; and
- 22 per cent identified as party drinkers.

Similar results were yielded from recent analyses of the Australian Temperament Project (Smart et al. 2004). Just under 2500 Victorian youths completed surveys in 1996, 1998 and 2000. Self-reported drug use in the 12 months preceding the survey increased across three age brackets (13-14, 15-16 and 17-18). All age brackets reported the same pattern; alcohol was used most commonly, followed by a much lower use of cannabis and very low rates of other illicit drug use. For example, 60 per cent of the 15-16 age group reported using alcohol and only 13 per cent reported using cannabis.

Levels of drug use amongst juveniles detained in police custody

Wei et al. (2003) conducted analyses on 439 juveniles who participated in DUMA from 1999 to 2002 in New South Wales and Queensland. The youths were aged 11 to 17 years, although the average age was 16, and the majority were aged 16 or 17 (68.4%). Urine tests are a more accurate gauge of recent drug use than self-reporting (McGregor & Makkai 2003). Juveniles' urine tests confirmed that many youths had used an illicit substance in the period before their arrest. In particular:

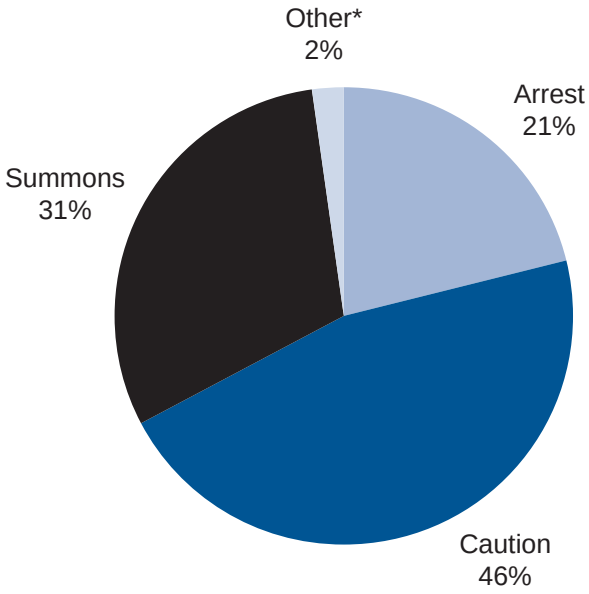
- 55 per cent tested positive to at least one drug;
- 19 per cent for two or more drugs;
- 48 per cent tested positive for cannabis;
- 12 per cent for opiates; and
- 11 per cent for amphetamines.

Victorian police data on juvenile drug offences

Currently, national statistics on offences committed by juveniles are not compiled by either the Australian Bureau of Statistics (ABS) or the Australian Crime Commission. Although police annual reports and reports issued by some state government departments contain data on juvenile offences, there are problems with comparing these figures. Among other things, definitions of offences and units of count vary across jurisdictions. Further, although most jurisdictions classify juveniles as people aged between 10 and 17 years, the legislative definition in Victoria and Queensland is 10 to 16 years. The DUCO juveniles data will, at least, provide a nationally consistent summary of the types of offences committed by juveniles in detention.

Victorian police data provide the most detailed breakdown of drug offences committed by juveniles (Victoria Police 2003/04). In total, 556 youths were alleged to have committed drug offences in 2003. Of these offences, 482 (86.7%) related to personal use or possession. The remaining alleged offences concerned the cultivation, manufacture or trafficking of drugs. The alleged offenders were male in 81.5 per cent of cases. Figure 1.3 shows how the alleged offenders were processed by the police.

Figure 1.3: Percentages of Victorian youths processed by arrest, caution, summons and other police procedures for alleged drug offences



Source: Adapted from Victoria Police (2003/04).

*Includes cases where a complaint was withdrawn, a warrant was issued, and cases where alleged offenders were under age, insane or deceased.

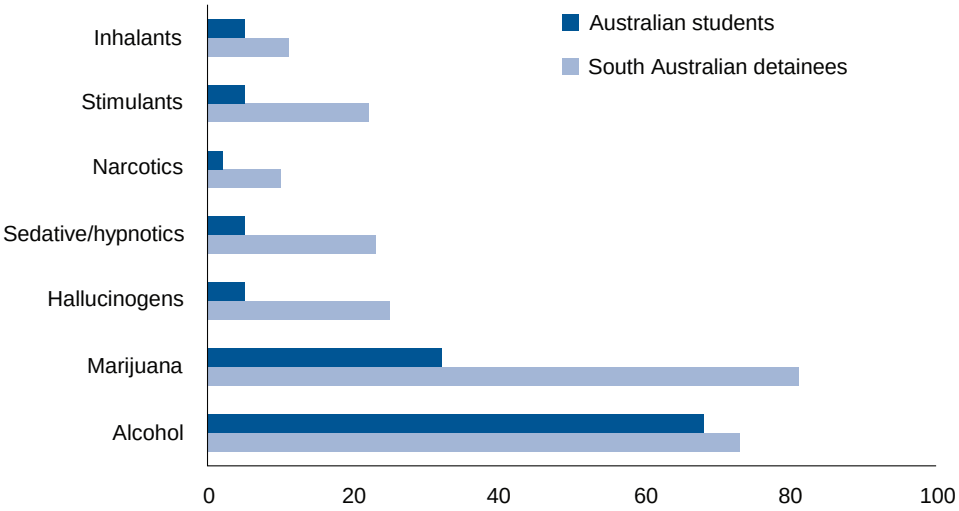
Figure 1.3 shows that in 46 per cent of cases, the Victorian police decided the matter was minor enough to warrant a caution. However, 52 per cent of alleged drug offences resulted in the youths' entry into the formal justice system.

Drug use among youths in detention centres

Rates of drug use by offenders in youth detention centres have been analysed by Putnins (2001), employing the South Australian subpopulation. Of 900 detained youths surveyed from 1994 to 1999, 91 per cent admitted using any of the listed substances during the month preceding their incarceration. The study compared these rates of use with juveniles in the general population. The general population sample of 2498 secondary students with an

average age of 16 was interviewed in a separate national study (Letcher & White 1998; cited in Putnins 2001). Figure 1.4 shows the self-reported drug use one month prior to detention (detainees) and one month prior to the survey (students).

Figure 1.4: Young offenders and secondary students reporting any use of substances during one month periods (per cent)



Source: Putnins (2001)

Clearly, while the use of alcohol was similar between the groups, the detainees reported markedly higher rates of use of all other substances. Putnins (2001) also asked the detained youths about their frequency of drug use (although similar data were not gathered from the student cohort). Ten per cent of the detainees reported using alcohol on a daily basis in the month prior to entering the detention centre. In contrast, four times as many (44%) reported daily marijuana use in the same period.

Similarly, a survey of 118 youths detained in Queensland asked youths to self-report the frequency with which they used different substances (Lennings & Pritchard 1999). The majority (61%) of detainees reported using cannabis 40 times or more in the month prior to detention. This was higher than alcohol, where 56 per cent of juveniles reported using 40 times or more in the month preceding detention. The frequency of amphetamine use was also high, with 18.7 per cent reporting use 40 times or more in the month before detention. With regard to 'ever use' of hard drugs, 64 per cent had tried hallucinogens, 47 per cent amphetamines and 35 per cent heroin. Overall, 42 per cent had injected drugs at least once.

Finally, Lennings et al. (2003) analysed drug use among 300 youth residents in nine detention centres in New South Wales. Youths were asked to self-report whether they had ever used substances. Results showed that 92 per cent had ever used cannabis and 56 per cent

had used amphetamines. Rates of use of narcotics (50%) and hallucinogens (46%) were also very high. More than a quarter of the youths had tried ecstasy (27%) and 17 per cent reported using inhalants.

Summary

Drug use is widespread among young Australians. In the general population of youths, alcohol is the most commonly used substance. Cannabis use is far less common, and only small percentages of youths report trying harder drugs or inhalants. As juveniles get older they report trying drugs more often, although the opposite is true for inhalant use.

A national picture of the frequency with which youths are dealt with by the police for drug offences is unavailable. Recent Victorian data indicate that most drug-related offences concerning youths involve personal use or possession. More than half of all cases result in arrest or summons.

The studies of juvenile drug use paint a bleak picture of young offenders' behaviours in comparison to others the same age. In particular, Putnins's (2001) study highlights much higher self-reported rates of use amongst detainees. Overall, the other studies indicate that young offenders report significantly higher rates of drug use in a one-month period than non-offending juveniles report in a year.

Chapter 2 builds on this general description of drug use among juveniles. Considering national and international literature, it discusses where drug use fits into the complex issue of juvenile crime in more depth.

2 Juveniles, drugs and crime

Juvenile crime is a troubling phenomenon internationally (Wei et al. 2004). Although the crimes they commit are less serious than those committed by adults, they are overrepresented in crime data, with the rate of juvenile offending twice as high (AIC 2003). The bulk of recorded juvenile crime is perpetrated by male youths (Junger-Tas et al. 2004). Rates of property crime appear to peak at 16 to 17 years of age, and violent crimes at 18 to 19 (AIC 2003; Hirschi & Gottfredson 1983).

Juvenile crime is considered less complex than adult crime in many respects. Typically, youths who commit crimes do so with little forethought; spontaneity and risk-taking are characteristics of juvenile crime (Weiner & Wolfgang 1989). This is arguably reflected in the fact that, although juveniles are overrepresented in property crime statistics generally, a fraction of recorded fraud offences are perpetrated by youths (AIC 2003). It has been argued that one reason official juvenile crime rates are high is that youths are easier for police to apprehend and successfully prosecute than adults (Wundersitz 1996).

The research into juvenile criminal careers is mixed. Some studies indicate that most young offenders desist from criminal activity as they enter adulthood (Farrington 1998; McLaren 2000). This is supported by Australian findings that most youths who appear in court do not reappear on subsequent charges (Carcach & Leverett 1999). Coumarelos's (1994) analysis of juvenile court appearances from 1982 to 1986 in New South Wales indicated that 70 per cent of youths appeared before the courts once and 15 per cent appeared a second time. More recently however, research has found that if followed long enough (into adulthood), approximately 70 per cent of those appearing as a juvenile, reappear for additional criminal charges (Chen, Matruglio, Weatherburn and Hua 2005).

The recidivism literature indicates that a small percentage of juveniles are serious recidivists who account for a large proportion of overall youth crime figures. The Coumarelos (1994) study indicated that less than four per cent of young people (those who appeared in court on six or more occasions) accounted for 20 per cent of all court appearances. The risk for these young people is that they will persist with criminality into adulthood, committing crimes of increasing seriousness (Howell & Hawkins 1998). Half of those aged 18 to 20 in the DUCO adult male study reported having served a period of detention as a juvenile. Across the entire sample, one in three had been in detention as an adolescent (Makkai & Payne 2003).

There has been a national decline in the rates of juvenile detention since the early 1980s (Charlton & McCall 2004). Females constitute about 10 per cent of juvenile detainees. Rates of detention of Indigenous youth have also declined. However, Indigenous youth are grossly overrepresented in Australian detention centres. In 2002, about 47 per cent of detained youths were Indigenous people. Proportionate to the population, this means that Indigenous youth are 19 times more likely to be sentenced to detention.

Theories of crime have highlighted the influence of informal social factors that affect juvenile antisocial behaviour, including families, schools, peer groups and neighbourhoods (Hirschi 1969; Sampson & Laub 1990). More recent empirical work has delved into infancy, childhood and adolescence to identify positive and negative influences upon the life trajectories of young people (National Crime Prevention 1999). The influences range from parenting styles, personality and learning disabilities, to diet and perinatal health. They can be divided into factors that help children avoid engaging in antisocial behaviour (protective factors), and those that increase the risk of these behaviours (risk factors) (Farrington 1998). The presence of one or more risk factors is not determinative of antisocial behaviour in youth. Some juveniles with multiple risk factors present in their environment never engage in offending behaviour (Losel & Bender 2003).

A substantial body of research has sought to identify risk factors specifically preceding alcohol and drug abuse in youth. Table 2.1 illustrates many aspects of young peoples' lives that have been identified as risk factors for criminal behaviour and substance abuse.

This body of research underscores the complexity of juvenile crime and the range of influences upon juveniles' choices concerning drug use. Many factors that increase the chance of juvenile criminality also have the potential to influence juvenile drug use (Strandberg 1995). Insufficient research has been conducted to determine with certainty how different risk factors affect girls and boys, although it appears that abusive family environments are more often associated with problem behaviours among females (Dembo et al. 1998; cf Newcomb et al. 1986).

Given this research, it is worth noting that youths in detention frequently experience multiple risk factors in their lives. For example:

- 43 per cent of youths in Putnins's (2001) study reported that they believed a member of their family had a problem with drugs or alcohol;
- detainees have reported high rates of suicidal ideation (26%), with up to nine per cent reporting an attempt at suicide (Fasher et al. 1997);
- 88 per cent of juvenile detainees in a comprehensive New South Wales health survey reported mild, moderate or severe symptoms consistent with a psychological disorder (Department of Juvenile Justice 2003); and
- American research found 65 per cent of young female detainees and 24 per cent of males had experienced sexual abuse (Dembo et al. 1990).

Table 2.1: Key risk factors for alcohol/drug abuse and criminal offending among juveniles

	Risk factors	References
Individual factors	Boredom Sexual or physical abuse Perceived positive psychological and physiological effects of drugs Prior detention for offending behaviour Poor expectations for the future and low self esteem Mental health problems; conduct/attention disorders Depression and psychological distress Unconventionality and tolerance for deviance Sensation seeking and the desire for novel and unusual experiences Low sense of social responsibility Early use of alcohol Changing houses and schools often	Nagin et al. 1995; Dobinson & Ward 1985; Nurco 1998; Salmelainen 1995; Stevenson & Forsythe 1998; Blumstein et al 1986; Babinski et al. 1999; Bailey et al 1992; Farrell et al 1992; Newcomb et al. 1986; Stockwell et al. 2004
Family	Family instability Absence of a capable guardian, lack of supervision at key times Family poverty Criminal parents; inconsistent, harsh or abusive parenting; rejecting attitudes; low parental supervision or involvement in child's life Separation or divorce and parental conflict Parents unemployed/welfare dependency; poor family housing High levels of alcohol consumption in family Parent drug use Poor relationship with parents Parental attitudes favourable to drug use and or antisocial behaviour	Nagin & Farrington 1992; Nagin et al. 1995; Blumstein et al. 1986; Hindelang et al. 1978; Sampson & Lauritsen 1990; Fergusoon & Horwood 1997; Farrington & Coid 2003; Strandberg 1995; Hartford et al. 1992; Blum & Rinehart 1997; Farrell et al. 1992; Newcomb et al. 1986; Stockwell et al. 2004; Sheridan 1995
School	Academic failure or lower levels of education Truancy and low commitment to schooling Leaving school early and frequent school changes Influence of school peers	Kelly et al. 1997; Nagin et al. 1995; Strandberg 1995; Newcomb et al. 1986; Stockwell et al, 2004
Peers	Delinquent or antisocial peers Poor peer relations, low popularity, social isolation Peer pressure to use drugs Perceived peer approval of drug use Peer drug use	Peri et al. 1997; Bailey et al. 1992; Farrell et al. 1992; Newcomb et al. 1986; Kelly et al. 1997
Community/ neighbourhood	Poverty Community disorganisation Availability of drugs and firearms Exposure to violence and crime within community	Oberwittler 2004; Farrington & Coid 2003; Van Wilsem; 2004

Patterns of initiation with alcohol and drugs

Young people use alcohol and drugs for a variety of reasons, including as a reaction to disturbed backgrounds and the influence of peers and societal attitudes (Dembo et al. 1998). Although drug use is frequently associated with social disadvantage, high levels of use have also been reported among youths from families in the highest 20 per cent of incomes (Community Drug Summit 2001).

Chapter 1 illustrated that young offenders use drugs more frequently than others in their age group. One in five detained youths in Putnins's (2001) South Australian study reported that they had a problem with substance abuse, and the rate among the female detainees was higher (31%). Juvenile detention does not appear to assist young people in breaking habits of drug abuse. Participants in the DUCO adult male study who had spent time in detention as a juvenile were more likely to have reported regular poly drug use and to have self-reported addiction (Makkai & Payne 2003). There is also evidence that young offenders first try drugs at an earlier age than the general population (Johnson 2001). In DUMA, the average age that young people detained by police self-reported cannabis use was 13 (Wei et al. 2003) compared with 16 years of age in the general population (Killias & Ribeaud 1999).

There are indicators that the most dangerous early drug using behaviour is poly drug use. For instance, a review of international literature suggests that early poly drug use is a 'unique predictor of drug use problems and other adjustment difficulties at age 21-22' (Loxely et al 2004:27 see also Lynskey & Hall 1998). However, researchers have attempted to tease out the order in which adolescents first use substances, including tobacco, alcohol and drugs (Donnermeyer & Chung 1991). The importance of this for policy and practice is that if serious drug use can be avoided in the teen years and early twenties, it is unlikely to develop at all, since rates of initiation decline steadily from the early- to mid-twenties onwards (Kandel & Logan 1984).

One hypothesis is that use of 'soft' drugs, such as alcohol and cannabis, act as stepping stones or gateways to the use of 'hard' drugs, such as amphetamines, ecstasy and heroin (Pudney 2002; Brook et al. 1992). Stepping stone hypotheses are contentious in that they ascribe causal relationship from the use of one substance to another (see further Makkai & Payne 2003; Brook et al. 1992; Huizinga & Elliot 1981; Kandel & Logan 1984).

Although the issue of causality is debated, research has found similar sequences in the ages at which juveniles first try alcohol and cannabis. One New York cohort study of youths indicated that more than 85 per cent of males and females who had used illicit drugs initially progressed from alcohol to cannabis to other illicit drugs (Kandal & Logan 1984). Alcohol has also been found to precede cannabis use in other research (Newcomb et al. 1986; Killias & Ribeaud 1999; Huizinga & Elliot 1981).

A 21-year longitudinal study of almost 1300 children in New Zealand found that 39 per cent of participants who had used other illegal drugs had first used cannabis (Fergusson and Horwood 2000). Further, even after controlling for individual, family and social factors, those who used cannabis at least 50 times in one year were 60 times more likely to use other illegal drugs. Arguably, this finding suggests that frequent cannabis use is a precursor to illicit drug use. American and British research has also found that cannabis use precedes later use of harder drugs (Newcomb et al. 1986; Johnson et al. 1995; Brook et al. 1992; Pudney 2002) and that the probability of initiating other drug use without first trying cannabis is low (Yamaguchi & Kandel 1984).

Examination of differences between the sequence of drug use by girls and boys has produced mixed results. Evidence of sex differences in general populations of juveniles have appeared in some studies and not others (Farrell et al. 1992; Newcomb et al. 1986; cf Yamaguchi & Kandel 1984; Dembo et al. 1990; Kandel & Logan 1984). The adult males and females who self-reported drug use during adolescence in the DUCO studies revealed similar patterns. The adult males reported first cannabis use at about the age of 15, followed by use of amphetamines, heroin and cocaine in their late teens and early twenties (Makkai & Payne 2003). For the adult females, cannabis use also began at 15 years on average, but this was followed by use of benzodiazepines, then amphetamines, heroin and cocaine in the late teens and early twenties (Johnson 2004). In South Australia, the main sex differences in drug use patterns were that female adolescent detainees were more likely than the males to report using most classes of substances, particularly narcotics, inhalants and stimulants, and injecting drugs (Putnins 2001).

Indigenous participants in the DUCO adult males study reported lower rates of illegal drug use than non-Indigenous participants (Makkai & Payne 2003). The average age of initiation with any drug was 16, compared with 15 for non-Indigenous offenders (Makkai & Payne 2003). Similarly, although the age of first use was not reported, the Indigenous youths in South Australia reported less use of most substances, including inhalants, than non-Indigenous youths (Putnins 2001).

The drugs-crime link

Intricate models of the pathways adolescents may take through delinquency have been developed. They incorporate criminality and, to a lesser extent, drug use (see for example, Tatem Kelly et al. 1997). However, there are no theories of the drugs-crime connection that specifically focus on juvenile offenders to the exclusion of adults. The central explanatory models described in the DUCO adult female report are as follows (White & Gorman 2000; cited in Johnson 2004):

- drug use leads to crime;
- crime leads to drug use; and
- drug use and crime are not causally related, but are the result of a third factor.

The first explanation can be divided into three hypotheses. These are that the use of drugs leads to crime because of: the psychopharmacological effects of the drugs; the costs of the drugs encouraging users to acquire money via crime; or the violence associated with the drug trade (Goldstein 1985; cited in Johnson 2004). The second explanatory model suggests that engaging in criminal activity draws offenders into criminal subcultures where drugs (and alcohol) are readily available. Offenders are influenced by the norms of the subculture, one of which is drug and alcohol use. The final model views both drug use and criminality as behaviours that are symptomatic of a third common cause. These might include childhood experiences of abuse, family problems or academic failure (White & Gorman 2000; cited in Johnson 2004). Johnson (2004) also makes reference to rites of passage as a potential third common cause. That is, in some social groups drug use and criminal acts may be driven by the same motivation, such as to gain group status through exciting or risk-taking behaviours (Chaiken & Chaiken 1990; Simpson 2003; cited in Johnson 2004). These observations seem particularly pertinent to youth crime, given the prominence of risk-taking behaviour and the influence of youth gangs (see White 2002).

It is not clear from research to date how well these explanatory models apply to juvenile crime and drug use. Some studies have concluded that for the most part, juvenile crime precedes drug use (Pudney 2002; Huizinga & Elliot 1981). In the DUCO adult female study, the general lifetime progression of the participants was to begin drug use at age 15 before crime at 17 (Johnson 2004). Over half of the DUCO adult male participants began offending before their drug use, and 17 per cent began in the opposite order (Makkai & Payne 2003). Twenty-nine per cent of the DUCO adult males began using drugs and offending in the same year. This supports observations made in other studies that drug use and juvenile criminality are symptoms of long- or short-term delinquent episodes (Hammersley et al. 2003).

In regards to juvenile property crime, Killias and Ribeaud (1999) suggest that addiction to hard drugs escalates offending rates. Juveniles who use hard drugs have been found to commit more property offences than other groups (Wei et al. 2003; Hammersley et al. 2003; Killias and Ribeaud 1999). Studies of adults have also found that crime precedes drugs and that drug use escalates criminal behaviour among property offenders (Makkai & Payne 2003; Chaiken & Chaiken 1990; cited in Johnson 2004). Evidence of escalation has also been found in juvenile populations who use heroin and/or cocaine (Johnson et al. 1991).

Interestingly, the drugs-crime connection may differ depending on the age at which either drug use or criminal behaviour begins. It appears that causal relationships between drugs and crime are less likely to emerge when the onset of delinquent behaviour occurs in early

adolescence. On the other hand, later onset of delinquency has been causally linked to general offences (Welte et al. 2001).

Crime attributed to drugs

Regarding adults, it is worth noting that 30 per cent of the participants in the DUCO adult male study personally attributed their offending to drug and alcohol abuse (Makkai & Payne 2003). This rate was even higher (41%) among the DUCO adult female cohort (Johnson 2004). Strong evidence of a link exists between the increase in numbers of heroin addicts in New South Wales and increases in robbery rates (Chilvers & Weatherburn 2003; cited in Johnson 2004). Further, an American analysis of almost 1300 heroin users found heroin to be closely associated with crime (Lynskey & Hall 1998).

Turning to adolescents, several differences between juveniles in detention and the general adolescent population were described in detail in Chapter 1. Prior to incarceration, juvenile detainees in New South Wales, Queensland and South Australia tend to:

1. use drugs more often;
2. use a wider range of drugs; and
3. start using drugs and alcohol at an earlier age than the general juvenile population

(Lennings et al. 2003; Lennings & Pritchard 1999; Putnins 2001).

More than 60 per cent of non-Indigenous detainees and 46 per cent of Indigenous detainees reported being under the influence of any substance at the time of their last offence (Putnins 2001).

Young people detained by the police in the DUMA project have indicated similar chronic drug use patterns as the juveniles in detention (Wei et al. 2003). Youths whose urinalysis revealed positive readings for cocaine, amphetamines or opiates self-reported committing crime at twice the annual rate of other youths.

Overall, the rates of property crime amongst adolescent users of hard drugs are higher than users of soft drugs only, and markedly higher than non-drug users (Killias & Ribeaud 1999). An American study found that two per cent of their juvenile cohort self-reported multiple serious offences and cocaine and/or heroin use (Johnson et al. 1991). This sub-cohort accounted for 40-60 per cent of the cohort's drug sale offences, robberies and other serious theft offences. Youths have also been ready to attribute their offending to drug use; 40 per cent of 300 young offenders in a British study felt that their offending behaviour was linked to their substance abuse (Hammersley et al. 2003).

In addition:

- alcohol has been identified as being closely associated with male juvenile violent crime (Lennings & Pritchard 1999; Lennings et al. 2003). This is thought to be due to alcohol's disinhibiting properties that can increase aggressive tendencies and risk-taking (Graham et al. 2001);
- alcohol also appears to be a contributing factor in juvenile property offences (Welte et al. 2001; Fergusson et al. 1996);
- other substances associated with violence include stimulants/amphetamines (Hammersley et al. 2003; Lennings & Pritchard 1999), cocaine (Lennings et al. 2003), and cannabis (Fergusson et al. 1996); and
- a study of reoffending rates among 458 juveniles in South Australia indicated that alcohol and inhalants had a significant relationship with recidivism. In particular, six months after release from juvenile detention, those who reported using alcohol several times a week or more were 77 per cent more likely to reoffend than youths whose use of alcohol was less frequent (Putnins 2003).

Summary

National and international research suggests that drug use is as equally entangled within the dynamics of juvenile crime as with adult crime. Compared with other juveniles, young offenders are found to begin abusing substances at an earlier age, use a greater variety of substances and abuse substances more frequently. The next chapter of this monograph describes the demographics of the 467 young participants in this study, followed by questions of their drug using and criminal behaviours.

3 Characteristics of the juveniles interviewed

The DUCO juvenile study involved the participation of 467 young people in juvenile detention centres in every state and territory. Face-to-face interviews were conducted between December 2003 and December 2004. There were 95 participants excluded from the present report because they were aged 18 or over. One participant, aged nine, was also excluded. This ensured that the report focuses on the 371 juveniles in a nationally-accepted meaning of the term, that is, aged 10 to 17 (details on the methodology and limitations of the study are provided in the Technical Appendix). This chapter provides descriptive data on the socio-demographic characteristics of the youths, their criminal histories and drug use.

Demographic characteristics

Fifty-nine per cent of the youths identified themselves as being of Indigenous descent. This is noticeably higher than the 2003 national estimate of 47 per cent (Charlton & McCall 2004). However, the age and sex of the participants were comparable to national trends on juvenile detainees; about 14 per cent of youths were aged 14 years or less and the vast majority of the participants were males (93%). Table 3.1 indicates that three females and 31 males were parents, representing nine per cent of the entire cohort. The average age of young parents was 16.

Table 3.1 also indicates that:

- most juveniles (76%) had stopped attending school before they entered detention;
- the mean age of leaving school was 14, which is lower than the minimum leaving age for most jurisdictions (generally 15 years, MCEETYA 2002); and
- on average, the detainees left school after completing grade eight, whereas the majority of the Australian youth population complete grade 12 (SCRGSP 2005).

With regard to housing prior to detention:

- 53 per cent of youths lived in their parents' home;
- 33 per cent lived in a home with someone other than their parents; and
- five per cent lived alone.

Of those juveniles who lived in private homes, 50 per cent stated that the home was public housing, which is one indicator of economic hardship. This rate is noticeably higher than for the DUCO adult females, of whom 30 per cent lived in public housing (comparable figures were not reported in the DUCO adult male report). A small number of youths (6%) were facing severe hardship, in that they were living on the street or in emergency housing before they entered the detention centre.

Table 3.1: Demographic characteristics of participants

	n	%
Sex		
Female	25	7
Male	346	93
Age		
11-12	4	1
13-14	47	13
15-16	187	50
17	133	36
Mean age	15.8	
Indigenous status		
Indigenous	218	59
Non-Indigenous	153	41
Education		
Left school before entering detention	281	76
School grade completed (median)	8	
Age left school (mean)	14	
Housing prior to detention		
Parents' house/apartment	197	53
Rented/owned house/apartment	18	5
Someone else's home	122	33
Foster/local authority care	11	3
Shelter/emergency housing	10	3
Street	11	3
Other	2	1
Public housing	186	50
Detainees who are parents		
Mothers	3	1
Fathers	31	8

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

History of offending

Australian juvenile justice systems employ different types of diversionary procedures for young people, such as formal and informal police cautions and community conferences (Daly & Hennessey 2001). Two primary objectives of these diversionary procedures are to minimise the numbers of youths appearing in court and, ultimately, being sent to detention centres. Young people can find themselves in detention because of involvement in one very

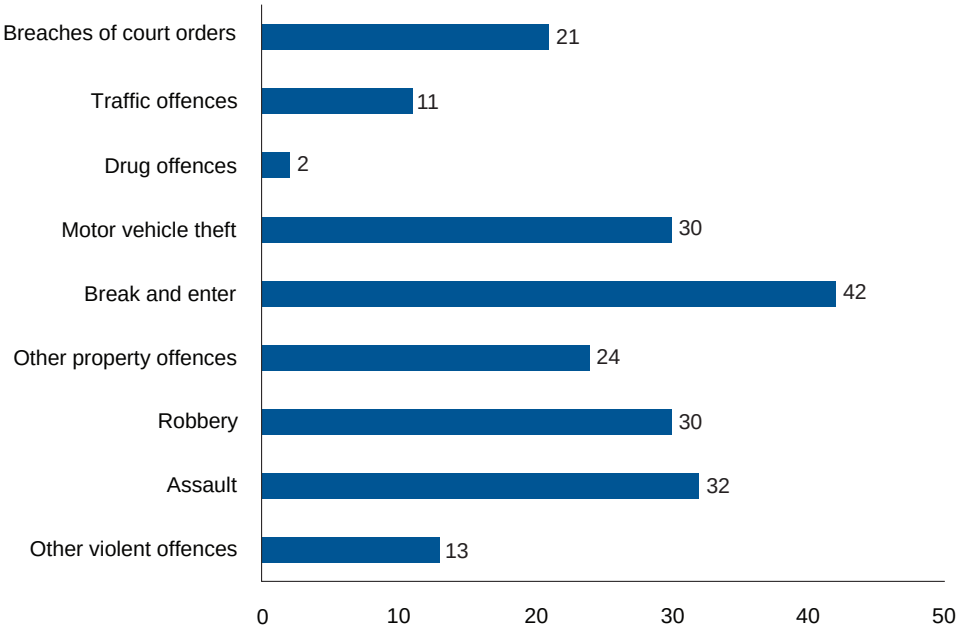
serious criminal act, such as murder or rape. For most youths, however, detention is the result of a long criminal history of less serious offences.

Detention was not a new experience for half of the DUCO juvenile sample:

- almost one third of youths had been sentenced to detention once or twice before;
- 17 per cent had previously served three to six detention sentences; and
- a small group (4%) had been sentenced to detention seven or more times prior to their current incarceration.

The youths were asked about the main charge or charges for which they had been placed into detention (either by sentence or remand). These charges were categorised according to the Australian Standard Offence Classification (ASOC) scoring rules (Australian Bureau of Statistics 1997). A maximum of four responses were recorded. Figure 3.1 provides a general overview of the types of charges for which the juveniles were detained.

Figure 3.1: Main charges for current detention (per cent)



Because the youths could report more than one charge the figures do not sum to 100 per cent.
Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file], n=371.

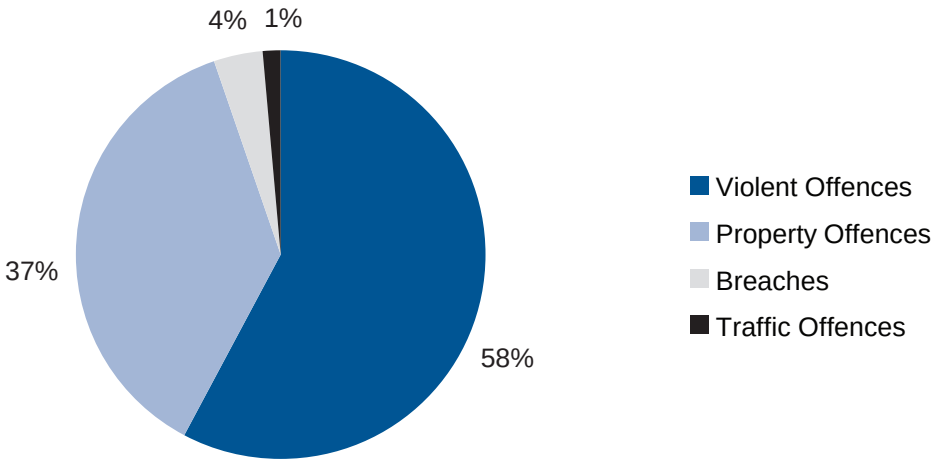
Property charges featured prominently. The most commonly reported charges were break and enter (42%) and motor vehicle theft (30%). A range of other property charges, such as vandalism, petty theft and receiving stolen goods, were recorded in 24 per cent of cases.

Drug charges were relatively uncommon. Twenty-one per cent of youths reported that one or more of the charges that led to their detention was a breach of a court order. Traffic violations, such as speeding or driving without a licence, were reported by 11 per cent of juveniles.

Notably, robbery and assault were reported as main offences for which the youths were detained in about one third of cases. More serious violent charges appeared in 13 per cent of all reported charges. This category included crimes such as grievous bodily harm, wounding, manslaughter and murder. Eight youths (2%) reported themselves as murderers.

When these charges are sorted by the single most serious offence recorded for each juvenile, violence features more prominently (Figure 3.2). The method for categorising the charges into a hierarchy of seriousness is similar to that used in the DUCO adult male report (Makkai & Payne 2003; see further, Technical Appendix). The eight categories include violent charges, property charges, drug charges, drink driving, breaches of court orders, public disorder charges and other charges. For example, a young person who had been detained for a breach of a court order, two counts of burglary and assault would be counted in the violent charge category as assault is the most serious charge.

Figure 3.2: Most serious charge for current detention (per cent)



Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

The first and second categories of seriousness, violent charges and property charges, accounted for the bulk of juveniles. More than half of the youths (58%) reported that they had been detained for one or more violent charges. The most serious charge for a further 37 per cent of juveniles related to property. Fourteen youths (4%) had been detained for breaches of court orders, and five (1%) for traffic violations alone. One youth reported a drug offence as his most serious offence, but this statistic was too small to appear on the pie chart in a meaningful way.

A great deal of information was obtained by asking the youths to report:

- whether they had ever committed crimes (regardless of whether the acts had been detected by the police); and
- the frequency with which they committed the crimes.

Juveniles were asked about 10 offence categories. Table 3.2 provides a breakdown of their responses. Similar to the DUCO adult male and female studies, participants were asked whether they had ever committed these offences. They were also asked whether they had committed the offences 'often' at some stage during their life (see further, Technical Appendix). For the purposes of this report, those youths who reported committing offences often are referred to as regular offenders. Table 3.2 displays the proportion of youths who reported ever committing offences, as well as the regular offenders. It also provides the rates of escalation, that is, the percentage of those who ever committed a crime and later became regular offenders.

Table 3.2: History of offending

	Ever		Regular		Escalation[1]
	n	%	n	%	%
Property offences	364	98	325	88	89
Vandalism	297	80	136	37	46
Motor vehicle theft	298	80	159	43	53
Break and enter	319	86	241	65	76
Stealing without break-in	303	82	209	56	69
Traded in stolen goods	279	75	202	55	72
Fraud, forgery	98	26	25	7	26
Violent offences	311	84	131	35	42
Physical assault	270	73	107	29	40
Robbery	205	55	60	16	29
Drug offences	326	88	290	78	89
Bought illegal drugs	316	85	282	76	89
Swapped or sold illegal drugs	205	55	136	37	66
Total	370*	100	347	94	94

*One youth was sentenced for assault and breach of a justice order. He claimed to be innocent and self-reported never committing any offences.

[1] Escalation is the percentage of those who ever committed the crime who became regular offenders.

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

The most striking feature of Table 3.2 is that the juveniles self-reported perpetrating all crimes at very high rates. In fact, fraud stands out precisely because of its comparatively low figures; 26 per cent of youths (n=98) admitted ever committing fraud and seven per cent

had done so regularly. Fraud also has the lowest rate of escalation. In contrast, the rates for 'ever committing' of all other crimes range from 55 per cent to 86 per cent.

Overall, according to their self reporting, the juveniles appear to be very serious property offenders:

- fraud aside, four out of five youths had perpetrated most forms of property crime at least once;
- at least one third of all youths became regular property offenders. In the case of burglary, 65 per cent of all youths reported regular activity. This indicates that, of the youths who tried burglary, 76 per cent escalated to regular offending; and
- very high rates of escalation were also recorded for trading stolen goods (72%), stealing (69%) and motor vehicle theft (53%).

Fewer juveniles were regular violent offenders, although the majority had perpetrated violence at least once in their lives. The youths were asked whether they had ever hit, beaten, stabbed or hurt someone. Their responses are contained in the physical assault category. Seventy-three per cent had 'ever' assaulted another, whilst 29 per cent had regularly done so at some stage. Escalation rates for assault were 40 per cent. More than half of the youths had committed a robbery (armed or unarmed). Compared with other crimes, few youths reported regular robbery (16%), meaning that robbery had one of the lowest rates of escalation amongst the juveniles (29%).

The majority of youths had bought drugs at least once (85%) and most had gone on to buy drugs regularly. Buying drugs has the highest escalation rate of all offence categories (89%). More than half of the adolescents had sold or swapped drugs, and 37 per cent had done so regularly.

Offence specialisation

One of the major contributions of the DUCO adult female and male reports was to identify different forms of offence specialisation among the incarcerated population. Johnson (2004) was able to distinguish between regular property offenders, regular violent offenders, regular sex workers and regular drug offenders. Makkai and Payne's (2003) analysis of the much larger cohort of adult male prisoners produced even greater detail, such as separating drug buyers from drug sellers.

However, determining offence specialisation among the juvenile detainees is difficult. This is not solely due to sample size, as the number of participants in this study is comparable to the DUCO adult female study. The juveniles have been limited in their capacity to diversify because of their age and as such have had less time to develop offence specialisations. The average age of the juveniles was 16, whereas the average age of the adult participants was

over 30 years. Other limiting factors for juveniles could include their cognitive development, and lack of access to bank accounts, driving licences and the like. These factors might inhibit involvement in, for example, sophisticated crime.

Table 3.2 underscores that the detainees reported committing most types of crime at very high levels. Consistent with this, different categories of regular offenders also reported regularly committing most types of other crime. This is illustrated in Table 3.3.

Table 3.3: Multiple offending, by offence type

	Types of regular offenders								
	Vandalism	Motor vehicle theft	Break and enter	Steal without break-in	Traded stolen goods	Fraud	Violent offences[1]	Bought drugs	Swapped/ sold drugs
	%	%	%	%	%	%	%	%	%
Regular property offences									
Vandalism	..	49	46	46	46	36	47	41	46
Motor vehicle theft	57	..	51	47	56	60	53	48	59
Break and enter	82	77	..	77	81	92	70	74	81
Steal without break-in	71	61	66	..	71	72	71	61	71
Traded stolen goods	69	70	68	68	..	88	67	64	80
Fraud	7	9	10	9	11	..	12	9	11
Regular violent offences[1]	45	43	38	45	44	60	..	38	50
Regular drug offences									
Bought drugs	85	85	87	83	90	88	82	..	95
Swapped/sold drugs	46	50	46	46	54	63	52	45	..
Mean number of offence types	6	6	5	5	6	7	6	5	6
Regular offending this crime type only	2	3	1	2	--	--	3	5	1
(n)	(n=136)	(n=159)	(n=241)	(n=209)	(n=202)	(n=25)	(n=131)	(n=282)	(n=136)

Offenders can be counted in more than one column.

[1] Includes physical assaults as well as armed and unarmed robbery.

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

Table 3.3 indicates that the categories of regular offenders, from regular vandals to those who sold drugs regularly, differed little:

- 47-60 per cent of all categories reported regularly stealing motor vehicles;
- regular vandalism varied only from 36 per cent to 47 per cent across the regular offender types;
- 61-72 per cent of all categories reported regularly stealing without break-in;
- one third to half of all regular offender types reported regularly perpetrating violent acts;
- 82-95 per cent of all groups reported regularly buying drugs; and
- about half of all groups regularly swapped or sold drugs.

The regular fraud offenders differ to some degree. They have the highest rates of regular burglary (92%) and violence (60%). However, this is also the smallest group, representing only seven per cent of the entire sample (n=25).

Exemplifying the homogeneity of the offenders is their mean number of offence types. These figures indicate the average number of offences each group regularly committed. All groups were, on average, regularly committing five to seven other types of crime. Additionally, very few youths reported regularly committing only one type of crime. Drug buying was the only crime five per cent of regular drug buyers committed on a regular basis. The figures were lower for all other groups. In fact, no youths regularly traded stolen goods or committed fraud only.

Box 1: Differentiating the regular offenders

Two steps were taken to differentiate regular offenders. First, drug offences, namely drug buying and selling, were excluded. This was done on the basis that there was a very high prevalence of drug offending across all other categories of regular offending. More importantly, it has been argued that drug offending is a proxy measure of drug use (Makkai & Payne 2003). Since this report examines interrelations between drug use and crime, separating drug using behaviours from regular offending allows for a clearer analysis of criminal behaviours.

The second step was to rank the regular offences according to a basic most serious offence classification. Youths reported on regular violent, property and drug offending. Once regular drug offences were removed, the classification simply ranked regular violent offending as being more serious than regular property offending. All remaining youths were classified as non-regular offenders.

Hypothetical examples of the categorisation process are useful.

- Young person A reported regularly assaulting others and regularly buying drugs. He is classified as a regular violent offender.
- Young person B reported regularly committing motor vehicle theft, burglary and robbery. She also bought drugs regularly. Because robbery is classified as a form of violence, she also would be categorised as a regular violent offender.
- Young person C sold drugs and traded stolen goods on a regular basis. He falls into the regular property offender category.
- Young person D bought and sold drugs regularly. He is classified as a non-regular offender.

Conceptually, it was possible to categorise the juvenile offenders in this sample into three different offender typologies – regular violent offenders, regular property offenders and non-regular offenders. Box 1 describes the hierarchical classification process undertaken and Table 3.4 displays the distribution of youths between the three categories. Thirty-five per cent of the youths reported that they had regularly committed violent offences. More than half of the youths (54%) are regular property offenders. The remaining 39 youths (11%) are non-regular offenders. This categorisation of juvenile offenders is fundamental to analyses described in the rest of the report, as explained in Box 2.

Table 3.4: Most serious regular offence

	Frequency	%
Offence category		
Regular violent offender	131	35
Regular property offender	201	54
Non-regular offender	39	11
Total	371	100

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

Box 2: Most serious charge and most serious regular offending

It is important to understand the two methods of categorising the detainees that have been presented in this chapter. The first categorises youths according to the most serious charge that led to their detention (Figure 3.2). This used an eight-level hierarchy of seriousness. Most youths fell into the first or second levels of violent charges or property charges. The most serious charge categorisation will be used in this report when analysing

influences upon particular criminal acts, for example, whether the youths were intoxicated at the time they committed the offence leading to their detention.

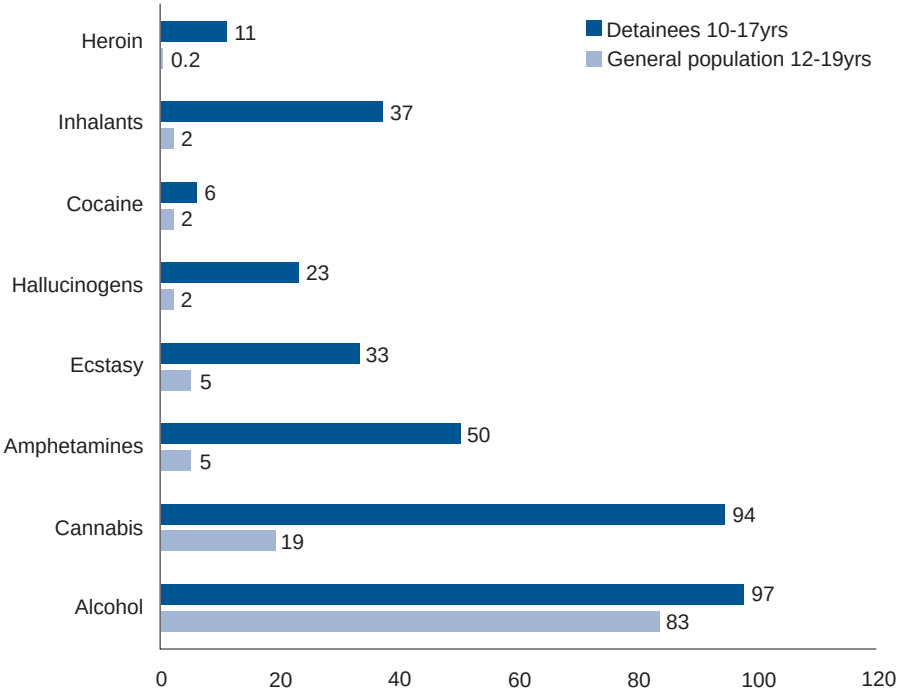
However, although a young person may be in detention for perpetrating a violent act, they may not be a regular violent offender. For instance, consider a hypothetical youth who committed burglary regularly but assaulted a police officer at the time of his arrest. In terms of his lifetime criminal behaviour, he is a regular property offender, even though his most serious current charge is a violent offence.

Ranking youths according to their most serious regular offending, as noted, resulted in three categories: regular violent offenders; regular property offenders; and non-regular offenders. This report uses this means of categorising the detainees when analysing long-term patterns, such as when youths first tried different drugs, or the influence of risk factors on criminal behaviour.

Prevalence of illegal drug use

Whilst national research into adolescent substance use in the general community has been conducted, this report is the first to present findings from all Australia states and territories on juvenile detainees. Figure 3.3 compares the substances youths self-reported ever using in the DUCO juvenile study (n=371) and the National Drug Strategy Household Survey (n=not released yet). Ever used is the only consistent measure between the two studies.

Figure 3.3: Substances ever used by juvenile detainees and adolescents in the general population (per cent)



Source: Adapted from Australian Institute of Health and Welfare, National Drug Strategy Household Survey, 2005; Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

The difference in the age brackets of the two samples is important. Research consistently indicates that substance use and initiation into harder drugs increases in the late teens and early twenties (see Chapter 1). Consequently, it could be expected that if the general population sample was aged 10 to 17 (rather than 12 to 19) their rates of substance use would be lower than indicated above.

The groups differ little in respect to ever drinking alcohol. For all other substances, the detainees reported markedly higher rates than youths in the general population. For example:

- detainees were five times more likely to have ever used cannabis, and ten times more likely to have used amphetamines;
- one in three detainees had tried inhalants compared with one in 50 youths in the general population;
- detainees are six to 10 times more likely to have tried ecstasy and hallucinogens; and

- two out of every 1000 youths in the general population have ever used heroin, whereas the figure is about 110 out of every 1000 detainees.

Table 3.5 provides details of the prevalence of substance use by the detainees. The youths were asked whether they had ever used substances, used in the six months before being detained, and used regularly in the six months before being detained. The participants were also asked to quantify regular use.

Table 3.5: Prevalence of substance use

	Alcohol	Cannabis	Amphetamines[1]	Inhalants	Ecstasy	Other[2]	Any	More than one
	%	%	%	%	%	%	%	%
Ever used	97	94	50	37	33	43	95	67
Used in six months prior to arrest	87	84	40	16	24	33	88	56
Current regular user[3]	46	63	20	7	8	17	71	29
Escalation[4]	47	67	40	19	24	30	75	43
Frequency of use for current regular users								
Less than monthly	1	1	-	-	-			
One to several times a month	8	3	5	12	33			
One to several times a week	53	10	37	27	60			
Once a day	15	13	23	8	7			
Several times a day	22	74	35	54	-			
Total	100	100	100	100	100			
(n)	(170)	(232)	(74)	(26)	(30)			

[1]Excludes legal use of these drugs.

[2]Includes heroin, cocaine/crack, street methadone, and morphine as well as illicit use of dexamphetamines and benzodiazepines.

[3]Those who used the substance during the 6 months prior to arrest, and who said they had been regular users.

[4]Escalation is the percentage of those who ever used the substance who became current regular users.

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

Of the 95 per cent of youths who had ever used any substances, 71 per cent used a substance regularly in the six months before entering detention (regular users). Sixty-seven per cent of the youths had ever used more than one drug, and almost one third (29%) were current regular poly drug users.

There were more regular cannabis users (63%) than regular alcohol users (46%). One in five youths regularly used amphetamines in the six months before being detained. Cannabis also led in terms of escalation, with two thirds of young people who tried cannabis becoming regular users. Alcohol and amphetamines were comparable in this sense, with escalation rates for these substances at 47 per cent and 40 per cent respectively.

Of the regular cannabis users, 74 per cent reported using several times a day, whereas the majority of regular alcohol users (53%) drank once to several times a week. Multiple daily use was also a prominent characteristic of regular users of amphetamines (35%) and inhalants (54%). Compared with regular users of other substances, many more of the regular ecstasy users considered monthly use to be regular.

So far, the juveniles have been discussed generally in terms of their drug use. But what are the main characteristics of the regular substance users? The five main types of regular users are compared below in terms of the other substances they used regularly (Table 3.6).

Table 3.6: Regular use of multiple drug types, by drug types (per cent)

	Regular alcohol user (n=170)	Regular cannabis user (n=232)	Regular amphetamines user (n=74)	Regular inhalants user (n=26)	Regular ecstasy user (n=30)
Regular use of:					
Alcohol	–	53	54	58	60
Cannabis	72	–	78	92	80
Amphetamines	24	25	–	15	57
Inhalants	9	10	5	–	13
Ecstasy	11	10	23	15	–
Mean number of drug types	2	2	3	3	4
Regular use of this drug only	21	28	5	4	7

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

As noted in Table 3.5, youths regularly use cannabis (n=232) more than alcohol (n=170). However, the regular alcohol and regular cannabis users shared some similarities. First, alcohol was the only substance that 21 per cent of regular users of alcohol used regularly. Similarly, 28 per cent of regular cannabis users only used cannabis regularly. Secondly, the two groups were very similar in their regular use of other substances, such as amphetamines,

inhalants and ecstasy. Finally, regular alcohol and cannabis users regularly used two substances, on average.

In contrast, regular users of the other substances used three or more substances regularly on average, and they rarely used only one substance on a regular basis. Across all five groups it is clear that cannabis was the most frequently reported substance used regularly, followed by alcohol. Potentially, alcohol and cannabis could be viewed as 'staple' drugs among regular users.

Regular amphetamine users reported the highest rate of regular ecstasy use (23%). Additionally, the regular users of ecstasy reported a rate of amphetamine use twice as high as any other group (57%). This may indicate some form of relationship between regular use of the two substances. However, explanations of any such relationship would be complicated by the fact that many users who think they are taking ecstasy are, in fact, taking fake ecstasy (McGregor & Makkai 2003).

In previous DUCO reports it was clear that poly drug users usually have a favourite drug. The drugs of choice for the regular juvenile substance users are outlined in Table 3.7.

Table 3.7: Preferred drug of choice, by type of regular drug use

	Regular alcohol user (n=170)	Regular cannabis user (n=232)	Regular amphetamines user (n=74)	Regular inhalants user (n=26)	Regular ecstasy user (n=30)	Regular user of other[1] (n=63)
Preferred drug:						
Alcohol	26	6	7	8	7	16
Cannabis	46	68	20	54	27	46
Amphetamines	14	14	58	12	20	24
Inhalants	2	2	-	15	-	-
Ecstasy	5	4	4	4	27	2

[1]Includes heroin, cocaine/crack, street methadone, and morphine as well as illicit use of dexamphetamines and benzodiazepines.

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

Regular users of cannabis and amphetamines stated that these were their drugs of choice:

- seven out of ten regular cannabis users preferred cannabis to any other substance; and
- about three in every five regular amphetamine users viewed amphetamines as their favourite drug.

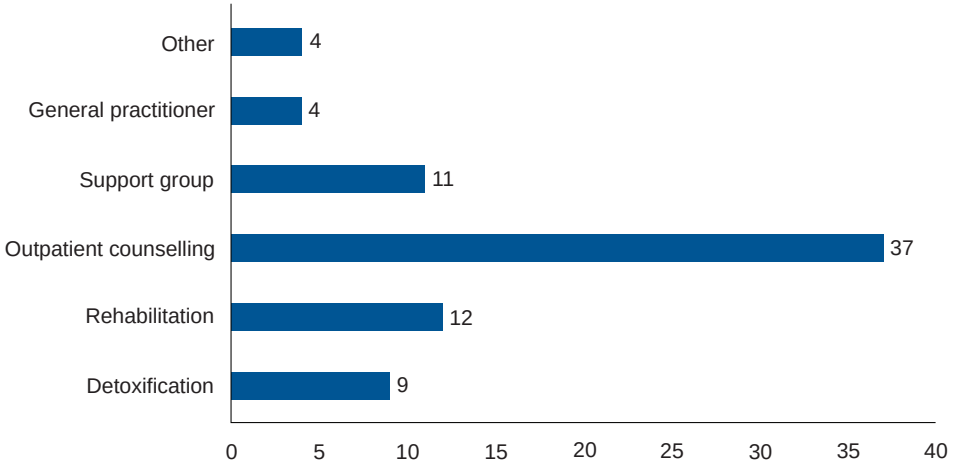
In comparison, only 26 per cent of regular alcohol users considered alcohol to be their preferred substance. In fact, almost half of the regular alcohol users (46%) listed cannabis

as their substance of choice. Similarly, 54 per cent of regular users of inhalants preferred cannabis. Very few regular inhalant users (15%) considered inhalants their drug of choice. Equivalent numbers of regular ecstasy users preferred cannabis, amphetamines or ecstasy itself. Finally, cannabis was the drug of choice for 46 per cent of regular users of other drugs.

Treatment for drug problems

A total of 168 youths, or 45 per cent of all juveniles, reported receiving some form of treatment for their drug use. Of these, 70 had experienced more than one type of treatment. Figure 3.4 highlights the types of treatments accessed by the young people. Of the entire sample, one in three youths had received outpatient counselling. About 10 per cent of youths had accessed a support group, rehabilitation or detoxification. A small number had been given treatment by a general medical practitioner.

Figure 3.4: Type of treatment received (per cent)



Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file], n=448.

The juveniles who reported accessing treatment were asked why they went to those programs. The responses indicated that, for the most part, youths entered programs either because of court orders (47%) or because it was their personal choice (35%). Six per cent were encouraged to enter programs during their period of detention, and three per cent entered a treatment program as the result of police diversionary practices. The remaining eight per cent provided other reasons.

Summary

Interviews with the 10 to 17-year-old detainees indicated a serious history of offending behaviour and current involvement in crime. Uniformly high levels of violence, property offences and drug buying and selling were reported. Rates of assault, robbery, burglary and motor-vehicle theft were noticeably high.

Drug use patterns among the juvenile detainees were manifestly greater than adolescents in the general population. Even in comparison to alcohol, cannabis appeared to be the most widely and frequently used substance, as well as being the drug of choice among regular users. In terms of harder drugs, amphetamines were regularly used by one in five youths and, of these, more than half used once or several times a day. Frequency of use of heroin and cocaine were much lower than among the incarcerated adult male population, which supports previous findings on the age of initiation for those drugs.

Despite the special vulnerabilities associated with heavy drug use in the formative years of adolescence, less than half of all youths had accessed drug treatment.

4 Linking drugs and crime

This chapter examines a fundamental issue for the juvenile DUCO project: to what extent is substance use connected with crime? The implications are significant in terms of informing crime prevention strategies and substance treatments for adolescents. The current study assesses the relationship between substance abuse and crime from a number of angles. These include:

1. intoxication at the time of the current offence;
2. the main reasons for committing the current offence;
3. methods used to obtain alcohol and drugs;
4. the juveniles' views about the impact of alcohol and drugs on their criminal behaviour;
5. explanations provided for criminal behaviour in general;
6. substance abuse in the lives of different types of offenders; and
7. the frequency of substance use amongst the young offenders.

As noted previously, this report uses the term substances to encompass alcohol and other drugs. The term drugs is used in reference to illicit drugs, like cannabis and amphetamines, as well as inhalants, the use of which is not necessarily illegal.

Intoxication at the time of the current offence

Seventy per cent of youths reported that they were under the influence of substances at the time of committing the offence leading to their detention (Table 4.1). This rate is higher than reported by incarcerated adult males (62%) and adult females (58%) in reference to the offences for which they had been imprisoned (Makkai & Payne 2003; Johnson 2004).

Similar numbers of juveniles reported that at the time of the offence they were intoxicated by drugs (24%), alcohol (22%), or both (24%). This pattern is similar to the adult males, although it is important to recall from Chapter 3 that adult males reported much higher rates of hard drug use. In total, 46 per cent of youths reported that they were drunk at the time of their last offences, while 48 per cent reported being high on drugs. The youths were asked to identify the drugs they had used at the time of their offence. The most commonly reported drugs were cannabis (75%) and amphetamines (39%). Of those who had been high at the time of their last offence, 64 (35%) reported being intoxicated by two or more drugs. Regardless of whether they were intoxicated at the time of their last offence, one in five juveniles indicated they were sick, hurting, or 'hanging out' from a lack of drugs.

Table 4.1: Intoxication at the time of current offence

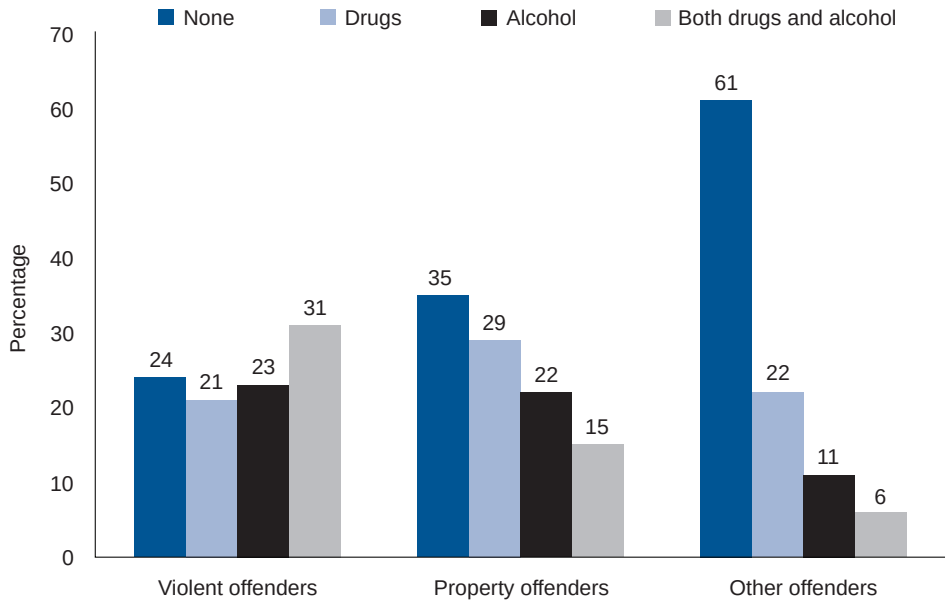
Type of substance	n	%
Drugs	85	24
Alcohol	77	22
Both drugs and alcohol	84	24
Not intoxicated	108	31
Total	354	100
Sick or hurting (lack of drugs) at time of offence	76	21
Type of drug at time of current offence		
Cannabis	127	75
Amphetamines	66	39
Inhalants	15	9
Ecstasy	18	11
Hallucinogens	5	3
Dexamphetamines (including on prescription)	12	7
Other	24	14
Total[1]	170	

[1]Multiple responses were permitted. Percentages are based on the number of juveniles under the influence of drugs at the time of the offence.

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

Some differences appeared between the youths in terms of the most serious charge for which they were detained, and their self-reported intoxication (Figure 4.1). Among violent offenders, (i.e. juveniles whose most serious current charge was a violent offence) 75 per cent were under the influence of substances at the time of the offence. The most common scenario was that violent offenders were drunk and high (on one or more drugs) when the crime was perpetrated. This was reported by 31 per cent of violent offenders.

Figure 4.1: Intoxication at the time of current offence, by most serious offence type



Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file], n=371.

In comparison, property offenders were slightly less likely to be intoxicated at the time of their offence (66%). Although they reported being under the influence of drugs at a higher rate (29%), they were half as likely to be both drunk and high. Overall, property offenders reported lower rates of drunkenness (37%) than violent offenders (54%). Of the small group of youths who were detained for other offences (n=14), the majority were sober when they perpetrated their offence (61%).

Main reason for committing the current offence

The participants were invited to explain the main reason for committing the offence that led to their current detention. Eighteen per cent of youths credited their offence to being intoxicated (Table 4.2). A further 16 per cent reported that they had committed their last offence to obtain money for drugs, meaning 34 per cent of answers implicated drugs and/or alcohol. Other responses related to needing or wanting money (18%) and peer influences (8%).

Table 4.2: Reason for committing the current offence, by most serious charge

	All offenders		Violent charge		Property charge	
	n	%	n	%	n	%
Intoxicated	65	18	43	21	22	16
Money for drugs	57	16	29	14	27	20
Money	65	18	33	16	31	23
Peer influence/pressure	30	8	15	7	14	10
Other	147	40	89	43	42	31
Total	364	100	209	100	136	100

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

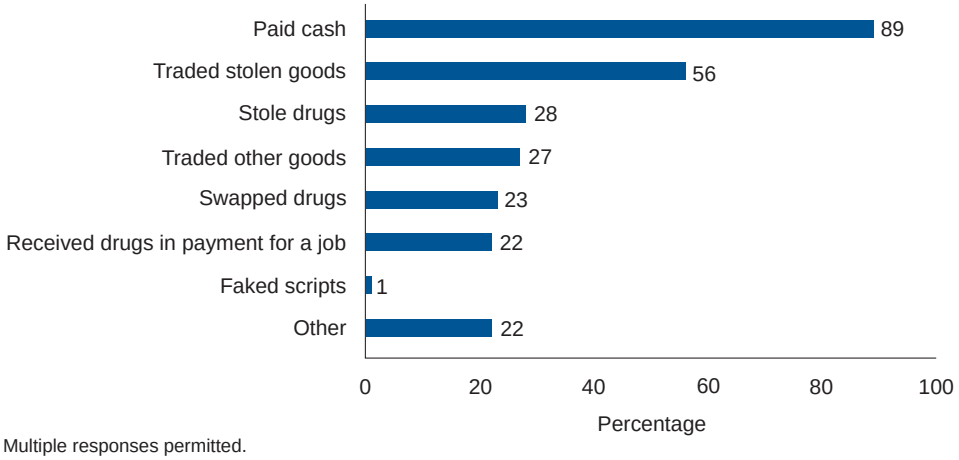
The responses of those youths whose most serious charge was a violent offence did not differ markedly from those whose most serious charge involved property crime. The violent charge group were slightly more inclined to report that intoxication was the main cause of their offence; 21 per cent of the group responded this way compared to 16 per cent of the property charge group. Those in the property charge category were more likely to be motivated by the desire for drugs or money.

Methods used to obtain drugs

Figure 4.2 shows that most youths reported paying cash for their drugs (89%). However, many juveniles were also prepared to engage in criminal activity in order to obtain drugs. In particular, 56 per cent of the young people traded stolen goods for drugs and more than a quarter (28%) stole drugs. This supports the view that drug users commit some crimes because of financial motivations.

However, whether the results are indicative of juvenile drug dependency is a moot point. There are difficulties with understanding juvenile drug dependency, as explained later in this chapter. Alternative explanations of the frequency with which juveniles commit crime to obtain drugs are that they have less access to legitimate sources of income, or steal to fund a number of pursuits or activities. One such activity is drug use.

Figure 4.2: Methods used to obtain drugs



Multiple responses permitted.

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file], n=362.

Perceptions of the effect of substance use on criminal careers

Similar to the adult DUCO studies, the juvenile participants were asked a number of open ended questions. One of these was 'What impact do you think your alcohol or drug use had on your offending?' The answers to this question do not necessarily indicate whether substance use causes crime. However, they do provide useful information when combined with other findings presented in this chapter. Ninety per cent of the juveniles' responses were able to be quantified into four general response categories, namely that substance use:

- had no impact on criminal behaviour;
- had an impact on criminal behaviour generally;
- had an impact on criminal behaviour via psychopharmacological dynamics (including being drunk, high, suffering from withdrawal symptoms, or strongly desiring substances at the time of the offence); or
- had an impact on criminal behaviour because of the need to acquire money to buy substances (economic/compulsive reasons).

Table 4.3: Lifetime offending attributions, by type of regular offender type

	All offenders		Regular violent offenders		Regular property offenders		Non-regular offenders	
	n	%	n	%	n	%	n	%
Impact	255	72	102	82	137	72	16	42
No impact	98	28	22	18	54	29	22	58
Total	353	100	124	100	191	100	38	100
Type of effect								
Psychopharmacological	100	67	47	73	47	59	6	100
Economic/compulsive	50	33	17	27	33	41	--	–
Total	150	100	64	100	80	100	6	100

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

Table 4.3 presents the perception of the impact of substance use on crime by non-regular offenders, as well as regular property and violent offenders.

The majority of youths (72%) reported that substance use had an impact on their criminal offending. Slightly more regular violent offenders (82%) considered substance use to have an impact on their offending than regular property offenders (72%). However, the non-regular offender group differed markedly. Compared with both regular offender types, non-regular offenders were more than twice as likely to report that substance use had no impact.

In total, 150 youths provided an explanatory answer, that is, they indicated how substance use had an impact upon their criminal behaviour. Across all offender types, two thirds highlighted psychopharmacological explanations and 33 per cent pointed to economic/compulsive issues. This overall trend is generally consistent within the offender types. Very few non-regular offenders provided an explanatory answer (n=6), which is difficult to interpret. In comparison with the regular property offenders (59%), regular violent offenders seemed slightly more inclined to offer psychopharmacological explanations of their substance use upon their offending (73%).

Examples of the verbatim responses provided by the young people are listed below. The adolescents who pointed to psychopharmacological effects often identified problems associated with a loss of reason and increased aggression.

> 'When I took speed I wanted to do something wrong – something exciting like stealing a car.'
>
> 'I offend when I'm on dope and alcohol – it's a different me.'
>
> 'It makes me feel so confident. I think that nothing can go wrong. You think that you're 10 men when you're on speed.'

> ‘Alcohol and drugs play on my mind, make me think that other people are talking about me. I do crime to get back at people.’

Explanations of the economic/compulsive effect were usually uncomplicated and straightforward.

> ‘Very bad – made me feel bad. I was addicted, had to do crime to support my habits.’

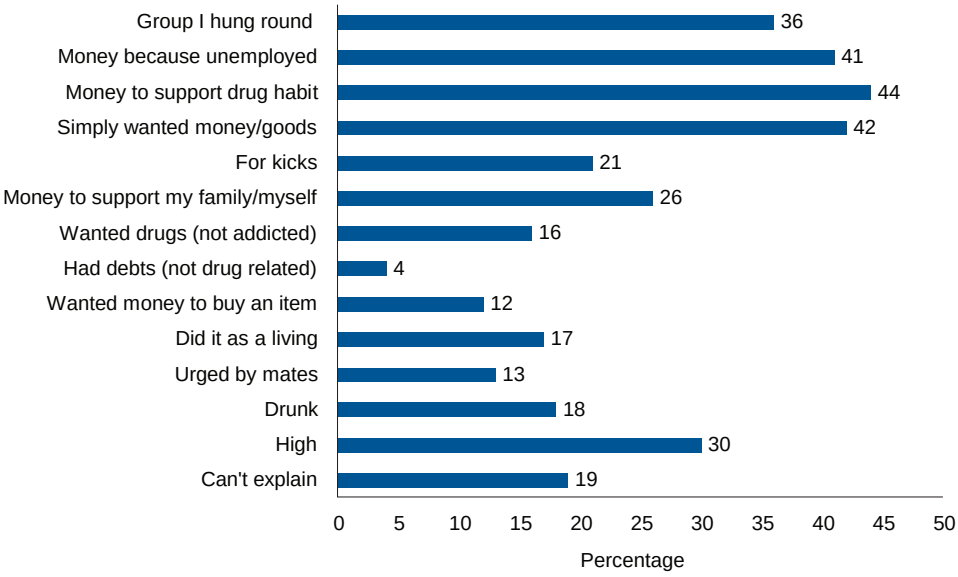
> ‘Needed money to buy drugs. They cost heaps.’

> ‘When I [need] money for dope I go and do something.’

Reasons for committing crimes

Youths were asked to rate a series of statements in relation to their own motivations for committing crime in general. The questions related to the 10 types of crime analysed in this study. Rather than presenting the motivations for all 10 categories of offending, Figures 4.3, 4.4 and 4.5 illustrate the motivations for burglary, physical assault and drug selling.

Figure 4.3: Reasons for committing burglary



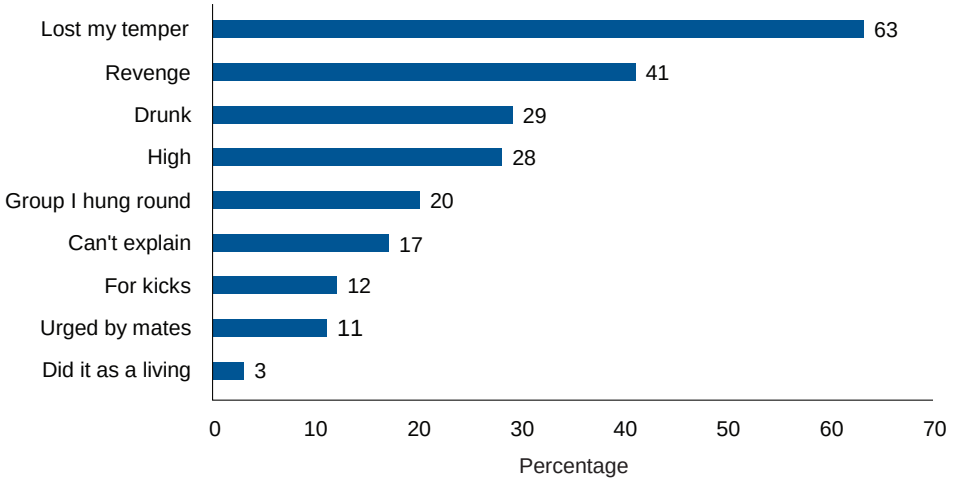
Multiple reasons permitted.
Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file], n=319.

Chapter 3 revealed that burglary was the most commonly reported property crime, committed at least once by 86 per cent of youths (Table 3.2). The three most common reasons cited for burglary were:

- to support a drugs habit (44%);
- to obtain money or goods (42%); and
- money was needed as a result of unemployment (41%).

More than one third of youths reported that another motivation was that their peers committed burglaries (36%). Thirty per cent considered that being high at the time was a reason for their offending behaviour, but this figure was lower in relation to drunkenness (18%).

Figure 4.4: Reasons for assaulting others



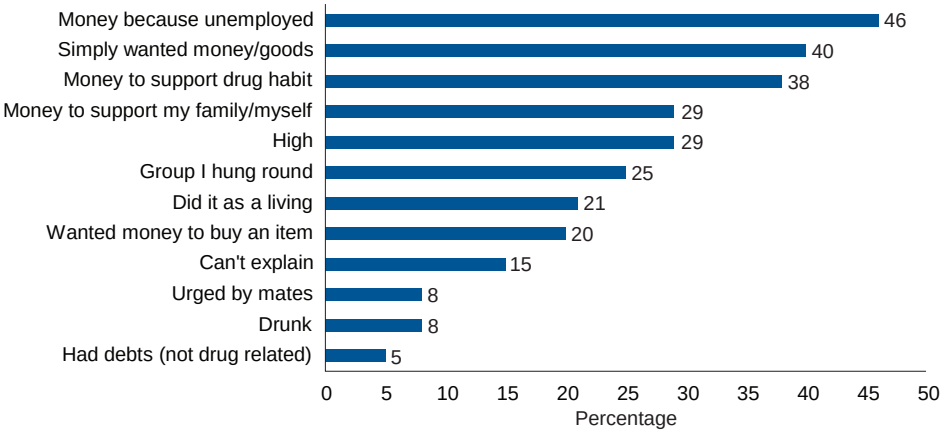
Multiple reasons permitted.
Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file], n=265.

Figure 4.4 indicates that anger was considered the main reason for perpetrating acts of violence on others (63%). Similarly, revenge or 'payback' was also reported by 41 per cent of youths. Twenty-eight per cent of youths indicated that being high at the time of the offence was a contributing factor. This rate is comparable to the reports on burglary. However, drunkenness was seen as a reason for violence more frequently than it was for burglary (29 per cent compared with 18 per cent). Separate questions revealed that:

- 22 per cent of youths had ever used violence or threats of violence in order to obtain drugs; and
- 17 per cent of youths had ever used a weapon to obtain drugs.

More than half of all youths admitted to ever selling drugs (Table 3.2). Of these, 46 per cent said they had done so because they needed money as a result of unemployment (Figure 4.5). Similar to the motivations for property offending, many youths considered the desire for money or goods (40%) and the need to support their drug habits (38%) as motivations for selling drugs. Almost one third of juveniles (29%) indicated that being high was a reason they sold drugs. However, drunkenness was rarely considered a contributing factor (8%).

Figure 4.5: Reasons for selling drugs



Multiple reasons permitted.

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file], n=203.

In their spontaneous responses to the open-ended question 'Can you tell me why you started to commit crime?' 24 per cent of youths suggested peer pressure or the influence of their peers was directly related. A further 23 per cent pointed to substance use. Alternative explanations included wanting money or goods, boredom, excitement and personal or family problems.

Substance use in offenders' history

Alcohol and drugs feature prominently in the lifestyles of the juvenile detainees. Table 4.4 compares offender types by their regular substance use in the six months prior to being arrested for the offence leading to their detention. Results show that regular substance use and regular offending are associated. Eighty-six per cent of regular violent offenders and 84 per cent of regular property offenders reported using at least one substance regularly in the six months prior to their arrest. In comparison, 49 per cent of non-regular offenders reported regular substance use in the same period.

Table 4.4: Regular substance use in six months prior to arrest, by type of regular offender

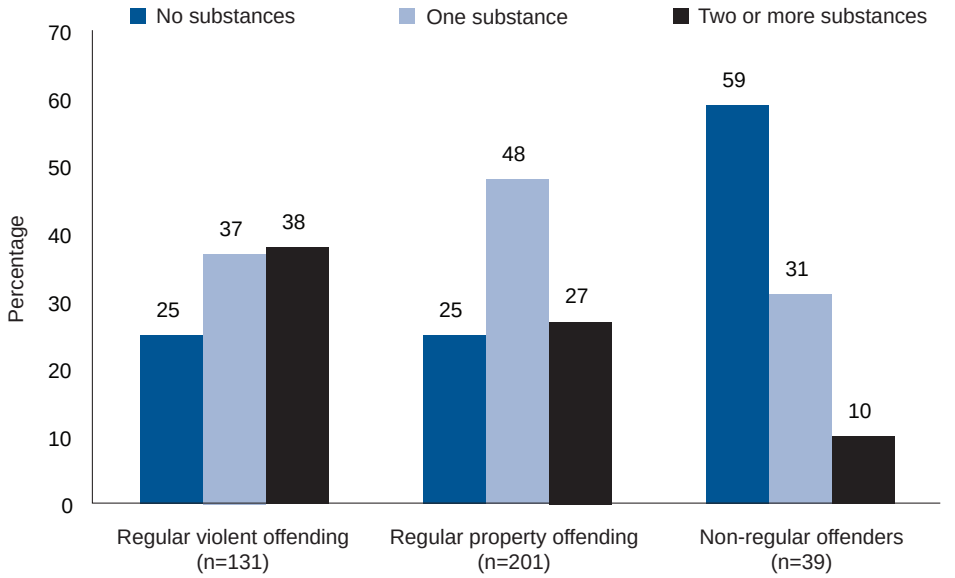
	Regular violent offenders	Regular property offenders	Non-regular offenders
	%	%	%
Alcohol	57	45	18
Cannabis	65	68	31
Amphetamines	29	17	5
Inhalants	8	7	3
Ecstasy	14	5	8
Other drugs	22	15	10
Mean number of substances used	2	2	1
Any current regular drug use	86	84	49
(n)	(131)	(199)	(39)

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

Other indications are that:

- on average, both categories of regular offenders used two substance types, while non-regular offenders used an average of one;
- the substances most prevalent among regular offenders were cannabis and alcohol, followed by amphetamines;
- regular offenders were two to three times more likely to be regular users of alcohol than non-regular offenders;
- twice as many regular offenders used cannabis as non-regular offenders; and
- 29 per cent of regular violent offenders regularly used amphetamines, compared with 17 per cent of regular property offenders and five per cent of non-regular offenders.

Figure 4.6: Prevalence of regular offending, by number of substances used



Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

It is also useful to compare the offender categories in terms of the proportions of youths who either did not use any substance regularly, used one substance regularly, or used two or more substances regularly. The comparison is illustrated in Figure 4.6. Differences between the offender types were statistically significant. Perhaps most noticeable is that one in every two non-regular offenders reported no regular substance use. In comparison, only one out of every four regular offenders (violent or property) fell into this category. Juveniles who used two or more substances were:

- four times more likely to be regular violent offenders than non-regular offenders; and
- three times more likely to be regular property offenders than non-regular offenders.

Forty-eight per cent of regular property offenders used one substance compared with 31 per cent of non-regular offenders.

Frequency of substance use

The youths were asked how often they drank alcohol or used drugs in the six months prior to being arrested. A large proportion, 249 youths (67%) reported using at least one substance on a daily basis or several times a day. Twelve per cent of the participants used

one or more substances on a weekly basis. Substance use occurred monthly or less than monthly for 21 per cent. Three participants had not used any substance in the six months leading to their arrest.

Table 4.5 compares the frequency of use by regular offender types.

Table 4.5: Frequency of substance use, by regular offenders

	Monthly or less	Weekly	Daily or more	Total
	%	%	%	
Regular violent offenders	17	9	74	131
Regular property offenders	19	12	70	200
Non-regular offenders	46	23	31	39
(n)	(77)	(44)	(249)	(370)

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

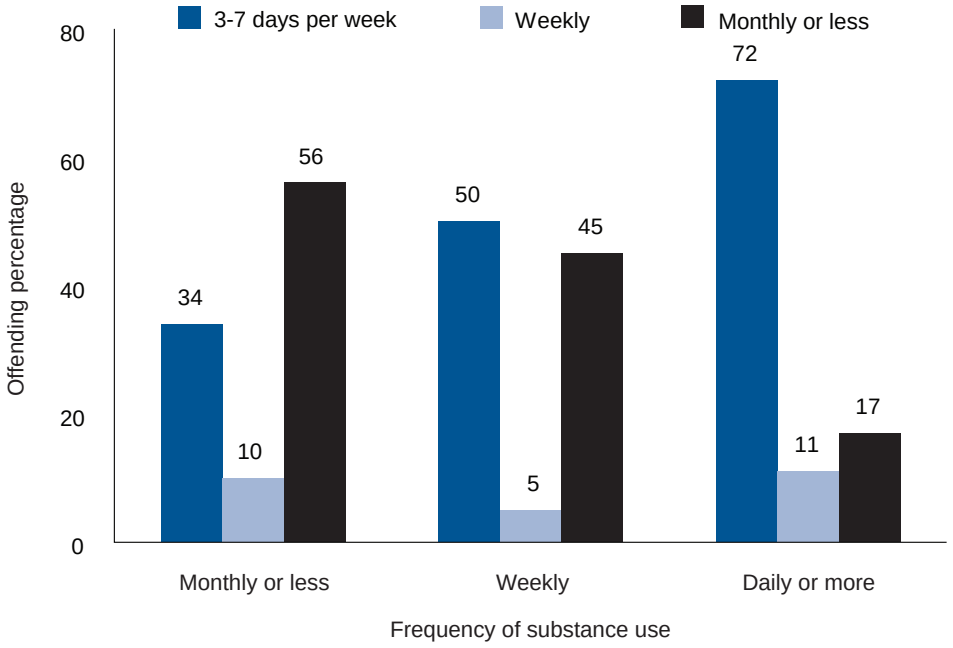
Clearly, the main difference lies between the non-regular offenders and the two categories of regular offenders. Seven out of 10 regular offenders used at least one substance every day, compared with three in 10 non-regular offenders. These differences were statistically significant ($p<0.01$).

Participants were asked how often they had committed each type of offence in the six months before the arrest which led to their current time in detention. To find what relationships, if any, exist between young peoples' rate of offending and their frequency of substance use in the six months before their arrest, juveniles were split into three groups. These were those who had committed offences:

- 3-7 days per week;
- 1-2 days per week; or
- monthly or less than monthly (including not at all).

The offence categories of drug buying and selling were excluded from this analysis (drug selling is discussed separately later in this chapter). This avoids, for example, counting a daily drug user as a weekly offender purely because they bought and/or sold drugs on a weekly basis to sustain their habit. The comparisons of the rates of offending with the adolescents' frequency of substance use in the same six month period are presented in Figure 4.7.

Figure 4.7: Frequency of substance use, by rates of offending



Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

The figure indicates that there is a relationship between the frequency of substance use and the rates of (non-drug related) offending, although it gives no indication of causality. Importantly, estimates of substance use increase as estimates of offending rates increase. Conversely, as juveniles' estimated substance use decreases so does their reported offending rate. The differences between the groups were statistically significant at the 0.01 level.

Specifically, in the six months before their arrest:

- 72 per cent of youths who used substances on a daily basis also committed crime three to seven days per week;
- criminal acts were committed monthly or less than monthly by only 17 per cent of daily substance users;
- one in three (34%) monthly substance users committed offences several days each week; however
- the majority of monthly substance users (56%) perpetrated crimes monthly or less than monthly.

Interesting differences also appeared between youths in terms of their frequency of substance use and the explanations they provided for committing the offence leading to their current detention. The open-ended responses were classified into alcohol/drug related reasons, such as being intoxicated or needing money for drugs, and non-drug related reasons, including peer pressure, needing money to support oneself and so forth. Table 4.6 displays the reasons provided by frequency of substance use.

Table 4.6: Frequency of substance use, by reasons given for committing last offence

	Drug related reasons	Non-drug related reasons	Total
	%	%	%
Frequency of use			
Monthly or less	21	79	100
Weekly	29	71	100
Daily or more	38	62	100
(n)	(122)	(242)	(364)

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

Youths who reported higher rates of substance use were more likely to provide a drug-related reason for why they committed their last offence. Compared with youths who used substances monthly or less, daily users were almost twice as likely to implicate alcohol and/or drugs in their explanation of their offending behaviour. The differences were statistically significant ($p=0.02$).

Finally, significant ($p<0.01$) trends appeared in relation to frequency of substance use and regular drug selling (Table 4.7). The results suggest that as juveniles' frequency of substance use increases, they are more likely to identify themselves as regular drug sellers:

- weekly users are about twice as likely to be regular drug sellers as those who use substances every month or less; and
- compared with monthly-or-less users, daily users are three times more likely to report regular drug selling.

Table 4.7: Frequency of substance use, by regular drug selling

	No regular drug selling	Regular drug selling	Total
	%	%	%
Frequency of use			
Monthly or less	86	15	100
Weekly	73	27	100
Daily or more	55	45	100
(n)	(234)	(135)	(369)

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

Addiction and substance dependency

Little is known about rates of adolescent drug dependency or alcoholism. It has been tentatively suggested that dependency may be less common among juveniles than adults. By virtue of their age, juveniles may simply have less opportunity for dependency to develop (Lennings & Pritchard 1998). However, recent Australian evidence suggests that, regarding alcohol at least, frequent use during adolescence is a strong predictor of dependency in the adult years (Bonomo et al. 2004).

As a result, this report, unlike the DUCO adult surveys, does not present findings relating to alcohol and drug dependency, and has not been used to examine the causal links between drug use and crime. A full discussion of the problems associated with measuring juvenile dependency is provided in the Technical Appendix.

Causal links between substance abuse and crime

The findings presented in this study provide clear evidence of a strong relationship between juveniles' abuse of substances and offending behaviour. However, a fundamental question is whether the relationship can ever be regarded as a causal one. Both adult DUCO reports employed a method to conservatively estimate the percentage of crime that was caused by substance abuse. The method, devised by Makkai and Payne (2003), incorporated analyses of substance dependency at the time of the offence. Since rates of substance dependency among the juveniles were not able to be confidently estimated, in this report a slightly different method was used. This method was based on three items:

- youths' open-ended explanations of why they committed their last offence;
- youths' reports as to whether they were intoxicated (drunk or high) at the time of the last offence; and

- whether juveniles reported being a daily substance user in the six months prior to their arrest for their last offence.

To link substance abuse as the cause of a youth's crime, the youth must have first given a substance-related reason for their offence, and secondly, have reported being intoxicated at the time, and/or reported being a daily user. The reasoning underpinning this method is that it combines each youth's subjective assessment of whether alcohol or drugs caused their offence with a more objective assessment, namely, whether they were intoxicated at the time or a daily user.

Across the entire sample, 33 per cent of youths provided drug-related reasons for committing their last offence. Two thirds of all youths (66%) admitted that they were drunk or high at the time of their last offence. Two thirds (67%) also indicated that they used substances on a daily basis in the six months prior to being arrested for their last offence. Table 4.8 explores the extent of the cross-over between these three variables.

Table 4.8: Model attributions for daily substance use and intoxication (percentages)

No attribution	67
Attribution	
Daily use	3
Intoxicated	7
Both	22
Total	**100**

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

The results indicate that the offences for which 67 per cent of juveniles were detained cannot be attributed to substance use. This group of youths includes those who provided drug-related reasons for their last offence, but were not intoxicated at the time, nor were they daily substance users. Also falling in this category are those youths who reported being intoxicated at the time of their offence and/or being a daily user, but who provided a non-drug-related reason as to why they committed their last offence. The remaining 33 per cent of crimes can be attributed to substance abuse. In most cases (22%) the offenders were both intoxicated at the time of the offence and using substances on a daily basis.

In total, 29 per cent of the crimes attributed to substance abuse implicated intoxication. This figure is identical to the percentage of the crimes attributable to intoxication in the adult male DUCO sample (Makkai and Payne 2003), whereas the rate attributed to intoxication in the adult female DUCO sample was higher (35%) (Johnson 2004). As noted in Chapter 3, the bulk of the juvenile sample (93%) were male. These findings potentially indicate that, for males, the patterns of behaviour in which substance abuse causes crime begin in adolescence and are continued into adulthood. Future research into this issue would need to account for the fact that adult males use harder drugs than their adolescent counterparts.

Summary

Chapter 3 highlighted that young detainees consistently engage in a wide variety of illegal behaviours and, for most, substance abuse is a prominent feature of their lives. This chapter built on those findings by providing clear evidence that juvenile crime is closely related to substance abuse. For example, the findings indicate that:

- 70 per cent of youths were intoxicated at the time of their last offence;
- 72 per cent of detainees, reflecting on their whole criminal career, reported that substance abuse had a negative impact;
- regular offenders were twice as likely as non-regular offenders to have been intoxicated at the time of their last offence, and considered substance abuse to have had an impact on their general criminal behaviour;
- 75 per cent of regular offenders reported regularly using substances, compared with 31 per cent of non-regular offenders;
- about one third of youths who had committed burglary, assault or who had sold drugs provided psychopharmacological explanations for their offending;
- 44 per cent of burglars and 38 per cent of drug sellers reported that they had committed offences to fund their drug habits;
- 67 per cent of all juveniles reported using one or more substances on a daily basis in the six months prior to being arrested for their last offence; and
- daily users were significantly more likely to offend several times a week and to sell drugs regularly.

It is difficult to establish causality between substance use and crime. However, conservative estimates suggest that 33 per cent of juveniles were detained for offences caused by their substance abuse.

The pattern observed in Chapter 3 of similarities between the predominantly male juvenile DUCO sample and the adult male DUCO sample appeared again in this chapter. In particular, crimes committed by adult and juvenile males were just as likely to be causally linked to alcohol as drugs. Crimes committed by adult females, on the other hand, were more likely to be causally attributed to drugs than alcohol.

The results underscore the importance of substance treatment programs for juveniles in detention. This study does not indicate levels of substance dependency or addiction among detainees. However, interventions can focus on preventing substance use behaviours that existed prior to detention from recurring once the youths return to everyday life. A priority should be preventing daily use of any substance.

5 Temporal order of substance use and crime

This chapter continues to explore the link between substance use and juvenile crime by examining the overall life-course of offenders. Does regular substance use precede regular offending, or vice versa? Or do adolescents begin substance use and crime in the same period of their life? Answers to these questions can inform intervention strategies for juveniles that focus on substance abuse and crime prevention.

A difficulty with interpreting some of the results presented in this chapter relates to the age of the juvenile DUCO cohort. The average age of the male DUCO sample was about 30 years, and the adult female DUCO sample about 33 years. This means that most adult participants were reporting events in their criminal and drug-taking careers over a period of multiple decades. In contrast, the average age of the DUCO juveniles was 15.8, with the youngest being 11 and the oldest 17. Consequently, reported ages for the onset of offending, for example, are far more condensed. Time differences between events tend to be measured in months rather than years, as was often the case in the adult DUCO studies.

Are small time differences significant for adolescents? On one hand, significant physical and cognitive changes occur during adolescence that are unmatched in the adult years (Crain 1992; Piaget 1965). For example, one year for a youth may encompass marked developmental changes, while one year for an adult may be relatively uneventful. On the other hand, events occurring a few months apart could arguably be considered to be concurrent in the context of the life-course of a juvenile.

Onset and persistence of substance use and crime

As with the adult DUCO studies, it is useful to compare the mean age of first and regular substance use, and the mean age of first and regular offending. Logically, if substance use begins at an earlier age than criminal behaviour then it may have contributed to that behaviour. If substance use begins after the onset of offending but before the development of regular offending, then substance use may have contributed to the persistence of offending behaviour (Johnson 2004: 59).

Table 5.1: Mean age of offending and substance use for offenders and substance users

	Onset - all offenders	Onset - regular offenders	Regular offending	Difference in years[1]
Property offenders	**10.9**	**10.8**	**12.5**	**1.7**
Vandalism	12.1	11.6	12.9	1.3
Steal without break-in	11.7	11.3	12.5	1.2
Burglary	12.5	12.2	13.4	1.2
Motor vehicle theft	13.2	12.8	13.8	1
Fraud	14.1	13.3	14.0	0.7
Traded in stolen goods	13.3	13.0	13.7	0.7
Violent offenders	**12.7**	**11.6**	**13.1**	**1.5**
Assault	12.6	11.7	13.1	1.4
Robbery without weapon	13.9	12.9	13.7	0.8
Drug offenders	**12.7**	**12.6**	**13.4**	**0.8**
Bought drugs	12.7	12.6	13.5	0.9
Sold drugs	14.2	14.1	14.3	0.2
	Onset - all substance users	**Onset - regular substance users**	**Regular substance use**	**Difference in years[1]**
Substance use	**11.0**	**10.7**	**12.3**	**1.6**
Alcohol	12.3	12.1	14.0	1.9
Cannabis	12.1	11.8	13.2	1.4
Amphetamines	14.3	13.9	14.5	0.6
Ecstasy	14.4	13.7	14.5	0.8
Inhalants	12.8	13.2	13.5	0.3

[1]Difference between onset and regular offending/substance use for regular offenders/substance users.

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file], n=371.

Table 5.1 presents the mean age of onset for all offenders and types of substance users. The results indicate that regular offenders began committing offences at a younger age than those who did not progress to regular offending. This same pattern was observed in the adult DUCO studies (Makkai & Payne 2003; Johnson 2004). Further aspects of Table 5.1 suggest that:

- the onset of offending for all youths occurred in a critical two to three year period, from ages 11 to 14;
- stealing was the offence youths began at the earliest age. The mean age of onset for those who later became regular offenders was 11.3, and for all offenders the mean age was 11.7;
- stealing is followed by vandalism, then burglary and assault;

- youths who became regular violent offenders began committing violent crimes more than 12 months before those who did not progress to regular violent offending;
- juveniles began buying drugs before selling;
- for all types of crime, regular offending developed within 18 months of the first offence; and
- selling drugs became a regular activity in under three months.

With the exception of inhalants, the age of onset for substance use was earlier for juveniles who progressed to become regular users:

- the first substances to be used on average were cannabis (11.8 years) and alcohol (12.1 years);
- while the onset of stealing occurred prior to cannabis or alcohol use, generally the first use of these substances took place at about the same time as the onset of vandalism, assault and burglary;
- first use of inhalants, ecstasy and amphetamines occurred later than the first use of alcohol and cannabis; however
- regular use of inhalants, ecstasy and amphetamines developed in the space of several months, far quicker than the rate of progression to regular cannabis or alcohol use.

The rate at which the youths progressed to regular use of alcohol and cannabis are comparable to the escalation rates reported by the adult DUCO participants (Johnson 2004; Makkai & Payne 2003). However, a particular concern is the rapid onset of regular use of amphetamine, inhalants and ecstasy amongst the youths. Even the most chronic substance users in the DUCO adult male study reported, on average, taking one year to progress from their first use of amphetamines to regular use (Makkai & Payne 2003). For most incarcerated adults, two years passed before regular amphetamines use began (Johnson 2004; Makkai & Payne 2003).

Differences between the ages of first substance use also appear within the juvenile sample by offender type. On average, regular violent offenders reported first using all substances at a younger age than regular property offenders, and non-regular offenders began using substances later still (Table 5.2). The greatest mean age differences appeared in the onset of alcohol and cannabis use. While regular violent offenders began using alcohol and cannabis at the age of 11, regular property offenders did so at the age of 12 and non-regular offenders at 13. The earliest age of initiation reported for alcohol and cannabis was two years of age.

Table 5.2: Age of onset of substance use, by type of offender

	Regular violent offenders		Regular property offenders		Non-regular offenders	
	mean	minimum	mean	minimum	mean	minimum
Alcohol	11.6	2	12.6	5	13.3	7
Cannabis	11.6	5	12.2	2	13.3	8
Amphetamines	14.1	7	14.4	11	15.3	14
Ecstasy	14.3	7	14.6	9	14.7	14
Inhalants	12.4	8	12.9	6	13.9	10
(n)	(131)		(201)		(39)	

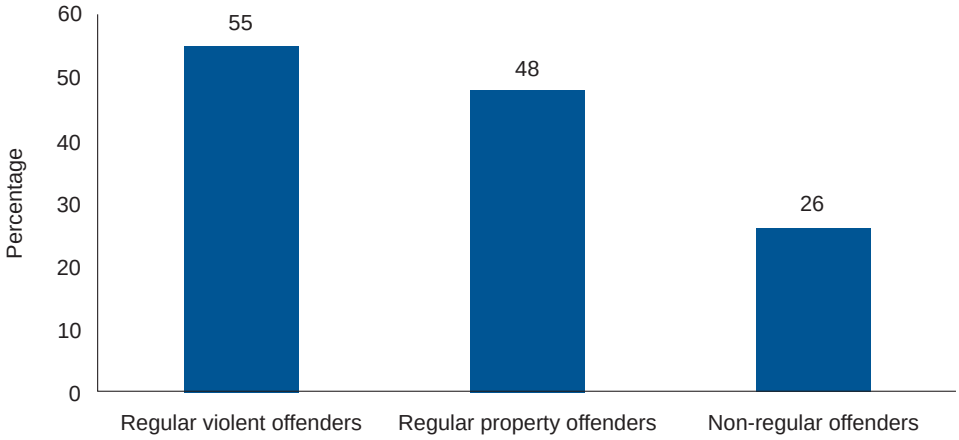
Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

Further analysis revealed that:

- 10 per cent of all youths had tried alcohol, cannabis and/or inhalants when they were nine years old;
- by the age of 11, almost one in three had used alcohol and/or cannabis and one in five had tried inhalants; and
- one in 10 juveniles used amphetamines by the time they were 12 years old.

School systems in Australian jurisdictions differ in terms of the age brackets used for each grade, and whether high school begins in grade seven or eight. On average, Australian youths make the transition to high school at about age 12 (SCRGSP, 2005; MCEETYA, 2002). In total, 176 juveniles first used drugs by the age of 11, that is, before reaching high school. A statistically significant difference ($p<0.01$) appeared between the offender types in terms of whether they first used any substance before high school (Figure 5.1). Regular offenders (violent or property) were twice as likely as non-regular offenders to have first used any substance before high school age.

Figure 5.1: The onset of substance use in the pre-high school years, by offender type



Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

As discussed in Chapter 4, two thirds of the youths (n=249) used one or more substances on a daily basis in the six months prior to being arrested for their current offence. The chapter highlighted that daily users displayed more serious offending patterns than those who used substances less frequently. Table 5.3 suggests, however, that daily users do not start criminal behaviour at a much younger age than non-daily users.

Table 5.3: Mean age of onset of offending, by daily substance use

	Daily substance use		Difference in years
	Yes	No	
Property crime			
Vandalism	12	12.2	.2
Motor vehicle theft	13	13.4	.4
Break and enter	12.5	12.5	–
Steal without break-in	11.7	11.9	.2
Traded in stolen goods	13.2	13.6	.4
Fraud	14	14.4	.4
Violent crime			
Physical assault	12.6	12.7	.1
Robbery	13.8	14.4	.6
Drug offenders			
Bought drugs	12.5	13.4	.9
Sold drugs	14.1	14.6	.5
(n)	(249)	(121)	

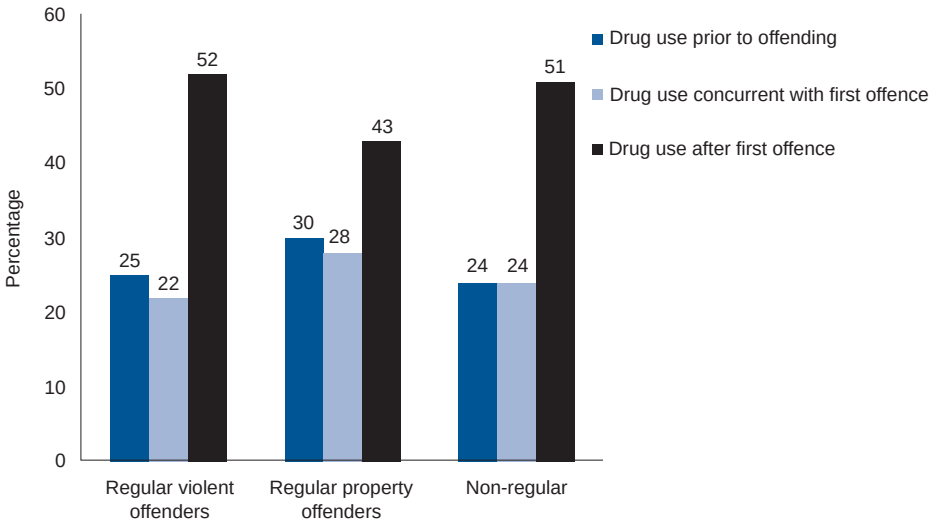
Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

Daily users started offending before non-daily users, but the age difference was less than six months for most types of crime. There was no age difference in respect to the onset of burglary. These findings indicate that, on average, the age at which detainees begin offending does not influence whether they later become daily substance users later on.

Temporal order of drug use and crime

Debates over the causal relationship between drugs and crime have relied heavily on the examination of the temporal order in which they occur. This may be done simply by comparing the percentages of youths who: used substances before they began offending; began substance use and offending at the same time (i.e. within the same year); and began substance use after their criminal behaviour started. These percentages are shown in Figure 5.2 for each offender type. This pattern is similar to that of the adult DUCO adult males (Makkai & Payne 2003). Generally, crime began before substance use for half of the youths. A quarter of youths began using substances within the same year that their criminal behaviour began while the remaining youths used drugs prior to offending. Clearly, the patterns between the offender types are very similar. The differences between the regular property offenders and the other two groups did not approach statistical significance. This suggests that the ordering of the onset of substance use and criminal behaviour does not influence whether juveniles will progress to either regular violent or property offending.

Figure 5.2: Temporal order of substance use and crime



Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

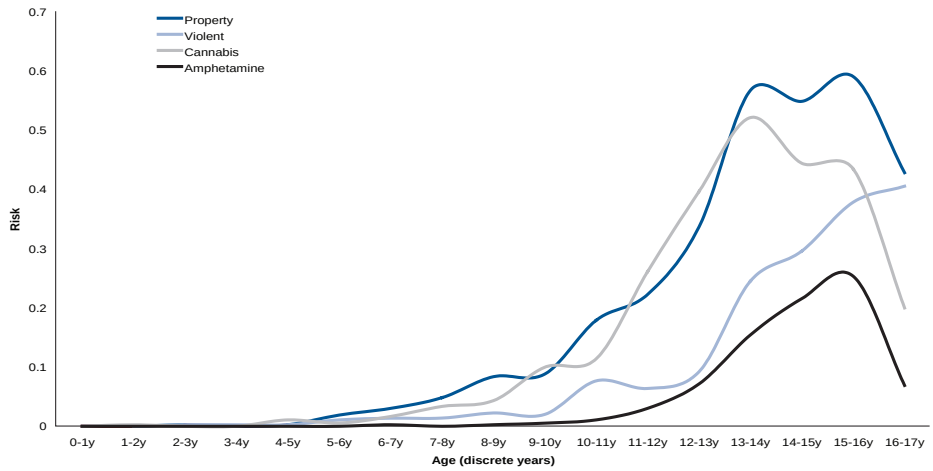
Pathways models are commonly used to explore the temporal order of onset between specific offence types, drug types, or both. Previous DUCO studies (see Makkai and Payne 2003;

Johnson 2004) illustrated that the pathways into drug use and crime varied for different offender typologies, and more serious offenders are more likely to have commenced drug use and offending at younger ages. Similar pathways analysis is not feasible in the present study of juveniles because not all youths had reached an age when specific events (such as violent offending) were most likely to occur. Instead, we use longitudinal methodologies to examine 'periods of risk'. These methods allow us to account for the fact that the juveniles in this study were of varying ages at the time of interview.

Figure 5.3 shows the preliminary findings of the risk analysis for first property and violent offence and first cannabis and amphetamine use. It demonstrates unique risk experienced by the juvenile detainees at each age as estimated in discrete time survival analysis. The risk that a juvenile will commit their first property offence begins to increase from five years of age. Between the ages of 13 and 16, the probability of committing a property offence is maximised (an approximate 60 per cent chance). Note that the risk for cannabis use, although not reaching as high as first property offence, follows a similar trajectory. Interestingly, the risk of using cannabis is maximised at 13 years of age, but subsequently declines by more than half to age 16 years. This illustrates that should a juvenile not use cannabis on or before 14 years, the risk of doing so subsequently declines.

The risk of violent offending and amphetamine use do not peak as high as first property offence or cannabis use, and the increase in risk is delayed (increases at a later time period). This preliminary analysis will be the subject of further detailed exploration.

Figure 5.3: Risk curves for offending and drug use



Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

Summary

The juvenile detainees mainly reported beginning substance use and all types of crime between the ages of 10 and 13. Their onset for the use of cannabis and amphetamines were markedly lower than reported by incarcerated adults. Further, juveniles tended to progress to regular substance use very quickly in comparison with the adult prisoners, particularly in relation to amphetamines, inhalants and ecstasy. A large number of youths began substance use in primary school or earlier. Early substance use seems to be interrelated with regular offending; regular offenders were twice as likely as non-regular offenders to have begun using substances before reaching high school. These worrying trends suggest that alcohol and drug interventions should consider targeting primary school children. It may also be appropriate for existing parenting programs to canvass the dangers of very early substance use.

No clear evidence arose of a causal stepping stone from substance use to crime with most juveniles reporting their first offence at least one year prior to their first use of illegal substances. In terms of when events occurred, regular violent offenders tended to begin using substances earlier than regular property offenders. The latter group, in turn, began substance use before non-regular offenders. It is important to note that regular violent offenders also began violent behaviour an average of two years before other types of offenders. The extent to which these behaviours are related to the environment and background of the youths is the focus of the next chapter.

6 Risk factors for substance use and offending

The DUCO juveniles survey was designed to capture basic information about risk factors in the lives of the participants. Chapter 2 outlined risk factors for young people identified by previous research. Many of these risk factors have been linked to juvenile crime and juvenile substance abuse. It is important to reiterate that risk factors increase the chance of, but do not determine, juvenile antisocial behaviour, and that they are often highly interrelated with each other (Farrington 1998; Losel & Bender 2003). The factors analysed in this chapter relate to:

- juveniles' history of abuse and neglect;
- living with parents;
- family substance use; and
- schooling.

The purpose of this chapter is twofold. Firstly, it provides a clearer picture of the lives of the young people interviewed in this study, the majority of whom are likely to represent the most chronic substance abusers and offenders in their age bracket in Australia. Secondly, the chapter explores the links between risk factors, substance use and crime.

History of abuse and neglect

Abuse and neglect in the early years have consistently been linked with juvenile delinquency (National Crime Prevention 1999). Different explanations of how abusive backgrounds lead to delinquency have been proposed. One suggestion is that people use substances as a means of coping with the psychological impact of the abuse they have suffered, such as numbing their emotions or blocking painful memories (Jarvis, Copeland & Walton 1995; cited in Johnson 2004). Later, once use has become habitual, illegal sources of funds may be sought to supply the substances. Other evidence points towards adolescents modelling the violent behaviours that they have witnessed in the home (see Farrington & Coid 2003). With regard to neglect, it has been argued that low levels of supervision of young people increases the risk of them engaging in delinquent behaviour (Wei et al. 2004).

The youths were not asked directly about sexual abuse for ethical reasons. However, they were asked whether anyone had:

- left them alone by themselves for a long time as a child;
- pushed around, hit, kicked or beaten them; or
- made them feel very sad, bad or frightened.

If the youths answered positively to any of the three questions they were asked to indicate who had done this to them.

Sixty-six youths (18%) indicated that they had been left alone for long periods of time as children (Table 6.1). About one in three youths reported that they had suffered violent abuse (n=132) or emotional abuse (n=101). It is tentatively suggested that some of the youths who reported being made to feel 'very sad, bad or frightened' may have been referring to the emotional effects of sexual abuse, although clearly there is no way of quantifying this issue.

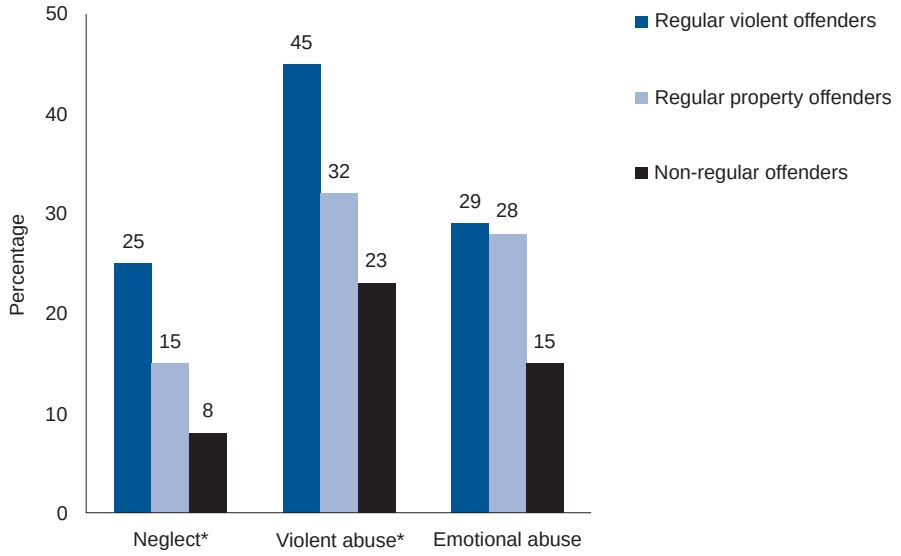
Table 6.1: History of abuse and neglect

	Neglect	Violent abuse	Emotional abuse
	%	%	%
Parents or guardians	94	60	70
Siblings	2	23	15
Stranger	2	10	9
Other	2	7	6
(n)	(66)	(132)	(101)

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

The three main categories of people youths identified as having neglected or abused them were parents or guardians, siblings and strangers. Not surprisingly, parents and guardians were the most likely figures to have neglected the youths at some stage (94%). They also accounted for the bulk of the violent and emotional abusers. Of the juveniles who had reported violent abuse, almost a quarter identified their siblings as the abusers.

Figure 6.1: History of abuse and neglect, by offender type



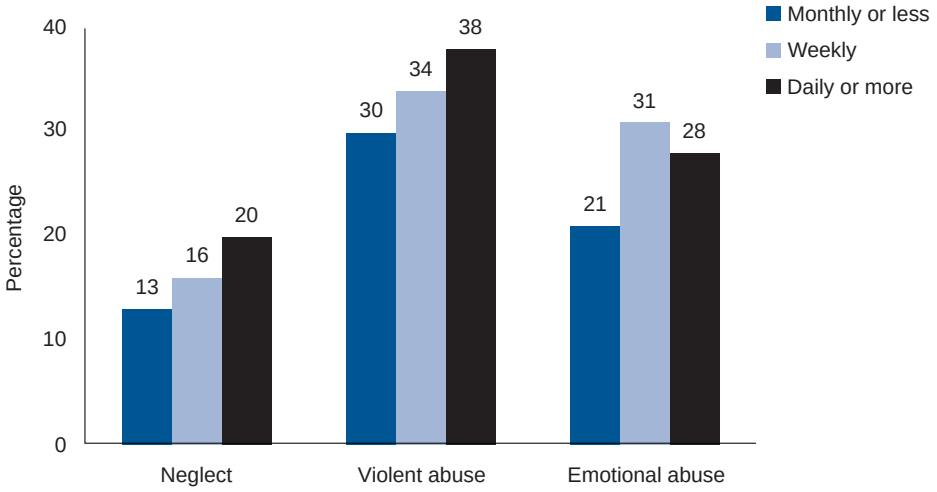
* Statistically significant, chi square, p<0.05

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

Have these histories influenced the criminal behaviours of the detainees? Figure 6.1 compares the rates of neglect, violent abuse and emotional abuse for the offender types; regular violent offenders, regular property offenders and non-regular offenders. The findings show that:

- regular violent offenders were three times more likely than non-regular offenders to report having been left alone for long periods of time as a child;
- this neglect was reported by twice as many regular property offenders than non-regular offenders;
- regular violent offenders had suffered physical abuse at double the rate of non-regular offenders; and
- regular offenders reported emotional abuse twice as often as non-regular offenders.

Figure 6.2: History of abuse and neglect, by frequency of substance use

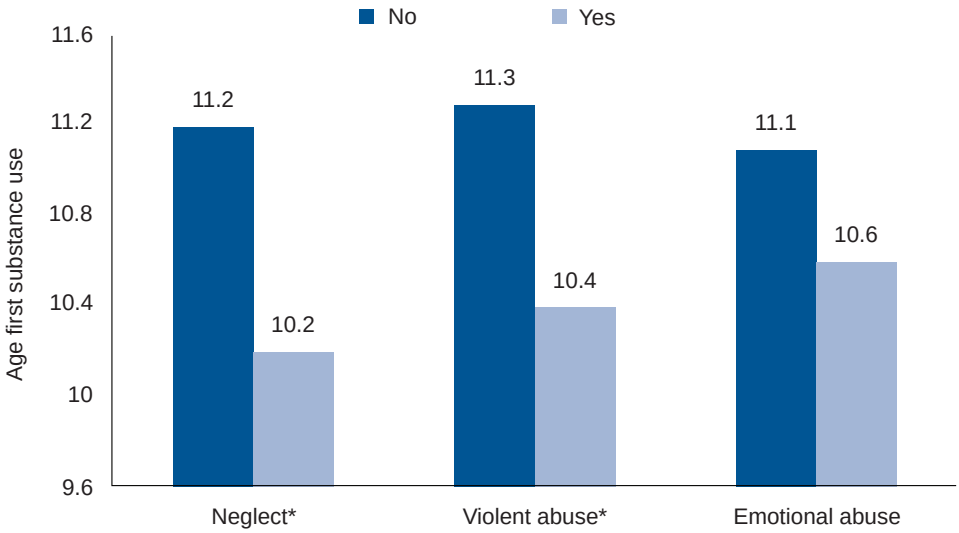


Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

Similar results were not yielded when the histories of abuse and neglect were compared with frequency of substance use in the six months prior to being arrested. Figure 6.2 highlights the reports of abuse among youths who used substances monthly or less than monthly, on a weekly basis, or at least once a day. No statistically significant differences were observed between youths who used substances on a monthly, weekly or daily basis. A slight trend was observed in relation to reports of neglect and violent abuse. That is, youths who reported higher rates of substance use in the six months leading to their arrest tended to also report higher rates of neglect and violent abuse.

Evidence does exist, however, of a relationship between the age at which adolescents first used substances and whether they had suffered neglect or abuse (see Figure 6.3). Analysis revealed a statistically significant difference. On average, youths who reported neglect or violent abuse began using substances one year before those who did not.

Figure 6.3: History of abuse and neglect, by age of first substance use



* Statistically significant, t-test, p<0.05

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

Living with parents

It appears that the experience of abuse and neglect, most of which was perpetrated by parents or guardians, had a further impact on the juvenile detainees. They were asked whether they were living with their parents at the time of their last offence, and 42 per cent (n=155) reported that they were not. Table 6.2 displays these results.

Table 6.2: Abuse and neglect and living away from parents at the time of last offence

	Neglect	Violent abuse	Emotional abuse	
	%	%	%	(n)
Living with parents	14	29	20	(203)
Not living with parents	23*	44*	35*	(155)
(n)	(66)	(132)	(101)	

* Statistically significant, chi squared, p<0.05

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

The differences are not large in percentage terms, but they are all statistically significant. Compared with those who were still living at home, youths who were not living with their parents at the time of their last offence reported higher rates of neglect, violent abuse and emotional abuse. While there are many reasons youths do not live with their parents, one

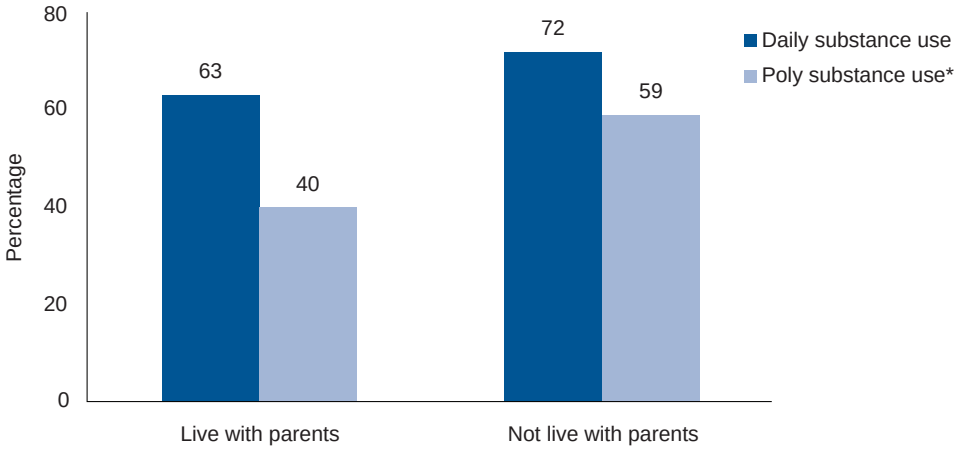
interpretation of this result is that escaping abuse or neglect of one kind or another is a strong motivation for juveniles to leave home.

Further calculation suggests that not living with parents is associated with more frequent offending and substance use in juveniles. Regarding offending:

- 42 per cent of regular violent offenders and 47 per cent of regular property offenders were not living with their parents/guardian at the time of their last offence; and
- of the non-regular offenders, only 26 per cent were not living with their parents.

The difference between the regular and non-regular offenders was significant (p=0.054).

Figure 6.4: History of abuse and neglect, by age of first substance use



* Statistically significant, chi-square, p<0.05

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

In respect of substance use, both daily drug use and poly drug use were more common among youths who were not living with their parents at the time of the last offence (see Figure 6.4). Three out of five youths who had left home were poly drug users, compared with two out of five youths still at home. Those who had left home also had a slightly higher rate of daily use, and this difference approached significance (p=0.059).

Those who had left home reported higher rates of abuse. It could be argued that their more serious offending and substance use behaviours are a function of that abuse (and other risk factors in the home environment). That is, the risk factors which contributed to juveniles leaving home also contributed to their higher rates of offending and substance use.

Family substance abuse

Parental abuse of substances has been identified as a risk factor for juvenile substance use and criminogenic behaviour (Sheridan 1995; Stockwell et al. 2004). Similarly, parents holding positive attitudes towards drug use acts as a risk factor for young people (Farrell et al. 1992). Apart from the potential for adolescents to learn substance abuse behaviours from family members, if alcohol and/or drug use is occurring in the home then there is a risk of access to those substances.

Overall, 67 per cent (n=249) of participants indicated that there was at least one person in their family who drank too much alcohol or used drugs while they were growing up. Table 6.3 illustrates the types of substances consumed by various members of the family. On average, two out of every five youths reported that their father or stepfather abused substances while they were growing up. In 33 per cent of cases the father or stepfather was drinking too much alcohol from the youth's perspective. Drug abuse by fathers or stepfathers was reported by 24 per cent of youths.

Table 6.3: Family substance abuse

	Mother/stepmother	Father/stepfather	Sibling
	%	%	%
No substance abuse	67	58	71
Alcohol	14	19	5
Drug	9	10	14
Both alcohol and drugs	10	14	10
Total	100	100	100

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

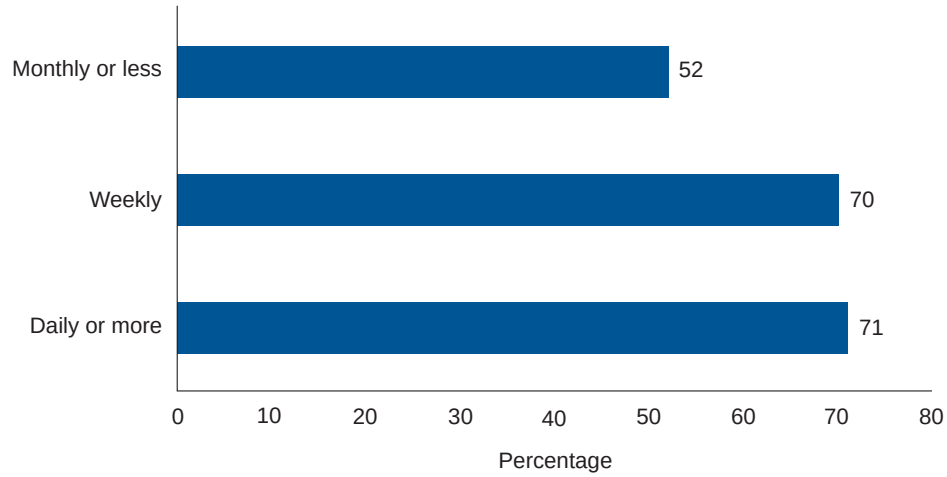
Less prevalent was substance abuse by mothers and stepmothers, although this was still reported by one third of juveniles. Again, alcohol abuse (24%) was slightly higher than drug abuse (19%). Substance abuse by siblings differed in that drug abuse (24%) was indicated more frequently than alcohol (15%). In all, 20 per cent of the youths reported that one or more siblings drank too much alcohol or used drugs.

Perhaps not surprisingly, it appears that family substance abuse had an impact on juveniles' own alcohol and drug using behaviours. Firstly, it may have encouraged earlier experimentation with substances:

- juveniles who reported family substance abuse started using substances themselves at the average age of 10.6; while
- for youths who did not report family substance abuse, the average age of substance initiation was 11.7 years.

This difference of just over one year was statistically significant ($p<0.05$).

Figure 6.5: Family substance abuse, by youths' own frequency of substance use

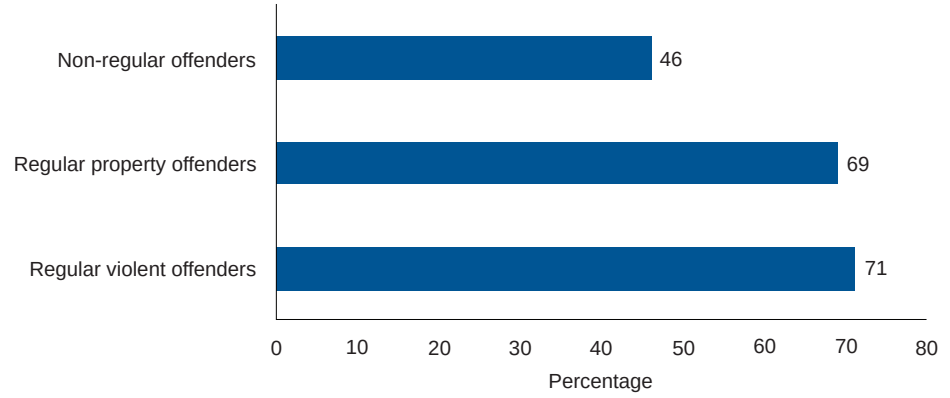


Statistically significant, chi square, p<0.05
Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

Secondly, the findings suggest that family substance abuse influenced the frequency with which youths used substances in the six months prior to being arrested (Figure 6.5). The results indicate that, compared with those who used substances every month or less, youths who used substances every week or every day were more likely to report that members of their family had abused substances while they were growing up.

Additional analyses revealed that family substance abuse is related not only to the frequency of substance use, but also to poly substance use. Altogether, 265 youths had used more than one substance on a regular basis in the six months prior to their arrest (see Chapter 4). Seventy-two per cent of these poly substance users reported family substance abuse. In comparison, family substance abuse was reported by 56 per cent of non-poly substance users. This difference is statistically significant (p<0.05).

Figure 6.6: Family substance abuse, by offender types

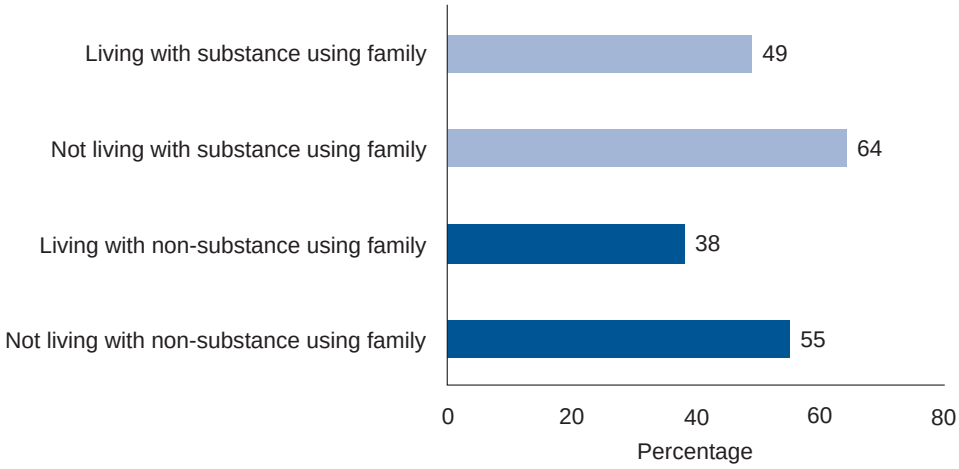


Statistically significant, chi square, p<0.05
Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

A similar statistically significant pattern also appeared in the relationship between juvenile crime and family substance abuse (Figure 6.6). The offender types differed in terms of the likelihood that substance abuse was occurring in their home. Family substance abuse was reported by about 70 per cent of regular offenders and 46 per cent of non-regular offenders.

The issue of what happened when youths left the home environment in which the substance abuse was occurring can be investigated using the youths' responses to whether they were living with their parents at the time of their last offence. Figure 6.7 compares youths in terms of whether they were living at home, were poly substance users and whether substance abuse occurred in their family.

Figure 6.7: Poly-substance use, by family substance use and living with parents



Statistically significant, chi square, p<0.05
Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

The findings indicate that poly substance use was higher among youths who had left home, even if the youths' family had abused substances:

- 49 per cent of youths who stayed at home with their substance-using family admitted to poly substance use; while
- 64 per cent of youths who had left their substance-using family were poly substance users.

Arguably, these findings indicate that leaving the home environment exacerbates adolescents' substance use. This could be because, regardless of their own substance use, parents tend to curb substance use in their adolescent children to some extent. Once living alone or on the street, however, the informal social control exerted by the parents is absent and peer influence may be greater. As a result, some juveniles may use this opportunity to increase their substance use.

Schooling

Experiences at school can have lasting effects on life trajectories. Adolescents who are attached to their school and perform well in academic and/or sporting endeavours are less likely to be attracted to antisocial behaviour (Tatem Kelly et al. 1997). Conversely, risk factors associated with school include:

- academic failure and lower levels of education;
- truancy and low commitment to schooling;
- leaving school early; and
- changing schools frequently

(Tatem Kelly et al. 1997; Nagin et al. 1995; Stockwell et al. 2004).

Truancy and leaving school early increases the amount of time juveniles spend unsupervised. During this time, boredom, peers or a variety of other factors may lead them into criminogenic behaviour and substance abuse (Strandberg 1995).

Youths were asked straightforward questions about their schooling, namely the last year of school completed, how often they truanted, how often they were suspended and whether they were ever expelled. There may be varied and complex reasons why young people leave school early, are truant, get suspended or expelled. Unstable family life, conduct disorders and victimisation by classmates are examples of potential contributing factors. Table 6.4 gives an overview of the juvenile detainees' school history.

Table 6.4: School experience

	%
Last year of school completed	
Grades 3-6	11
Grades 7-9	76
Grades 10-12	13
Ever truanted	90
Often truanted	38
Ever suspended	89
Often suspended	44
Ever expelled	59

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file], n=371.

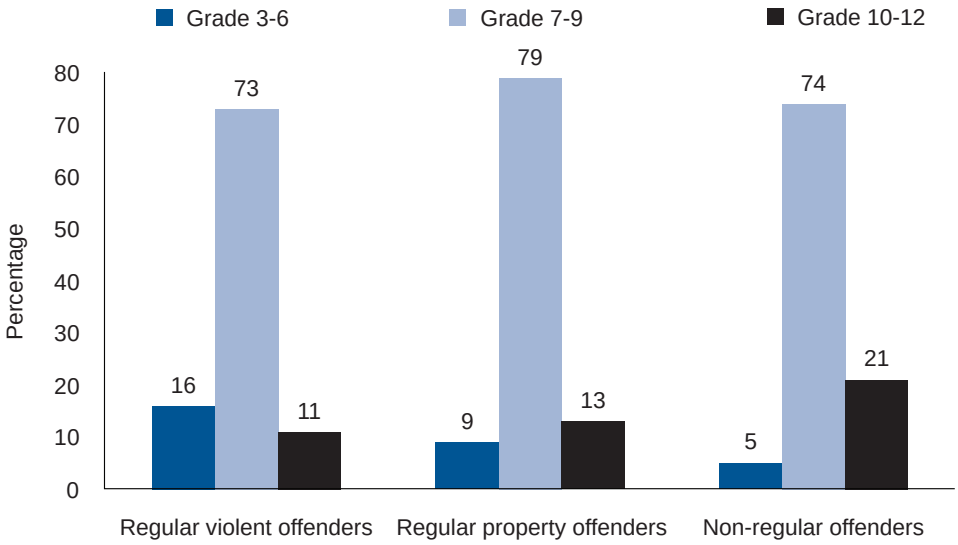
For three quarters of youths, the last year of school completed was between grades seven to nine. One in 10 youths had not progressed beyond grade six. There are strong indicators that whatever amount of schooling they had, most youths had a troubled and unproductive education:

- almost 60 per cent had been expelled from school;
- the majority of youths admitted that they had truanted from school and had been suspended at least once;

- 44 per cent reported that they were often suspended; and
- more than one third indicated that they truanted from school often.

Are such school experiences related to crime? That is, do the types of young offenders differ in their educational histories? Starting with the grade of school completed, no significant differences appeared between regular violent, regular property and non-regular offenders (p=0.12). However, a slight trend was recorded (see Figure 6.8).

Figure 6.8: Last grade of school completed, by offender type



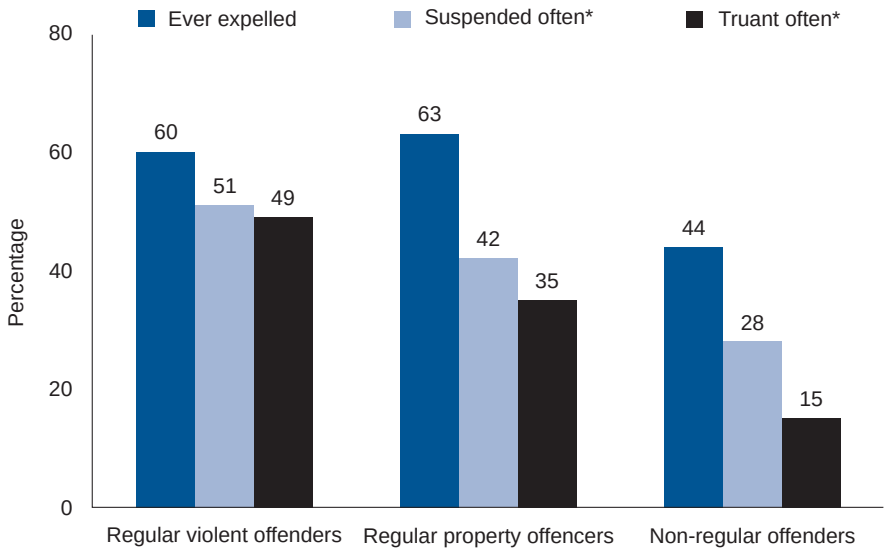
Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

Regular violent offenders were three times as likely as non-regular offenders to have reported that they did not progress beyond grade six. Twenty-one per cent of non-regular offenders completed grades 10 to 12, compared with 11 per cent of regular violent offenders.

More conspicuous differences arose in respect to truancy and suspension, as illustrated in Figure 6.9. Most notably, half of all regular violent offenders reported often truanting from school. The rate was also high for regular property offenders (35%). In comparison, only 15 per cent of non-regular offenders reported frequent truancy.

Similarly, half of the regular violent offenders and 42 per cent of the regular property offenders were suspended from school often, whereas frequent suspension was a feature of school life for 28 per cent of non-regular offenders. No statistically significant difference was observed between the groups as to whether they had ever been expelled, although non-regular offenders again had lower rates of reporting than the regular offenders.

Figure 6.9: School history, by offender type



* Statistically significant, chi square, p<0.05

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

Further analyses were conducted on the number of times each youth had been expelled. Regular violent offenders had, on average, been expelled from school three times. The average number of expulsions for regular property offenders and non-regular offenders was two. An analysis of variance indicated the difference between the groups was highly statistically significant (p<0.01).

In addition to a relationship with juvenile offending, an unambiguous link exists between juveniles' school history and their age of first substance use. The age at which the juveniles left school appears to be related to the age at which they first tried alcohol or drugs (Table 6.5). The earlier juveniles left school, the earlier they began using substances. Youths who ended their education by grade six typically began substance use at the age of 9.4 years. This is more than 18 months earlier than youths who left school between grades seven to nine, who had an average age of onset for substance use of 11.1 years. The average age of onset was 12 years of age for adolescents who completed grade 10, 11 or 12. Likewise, as indicated in Figure 6.10, earlier ages of substance use were reported by youths who were ever expelled, were suspended often and who truanted often.

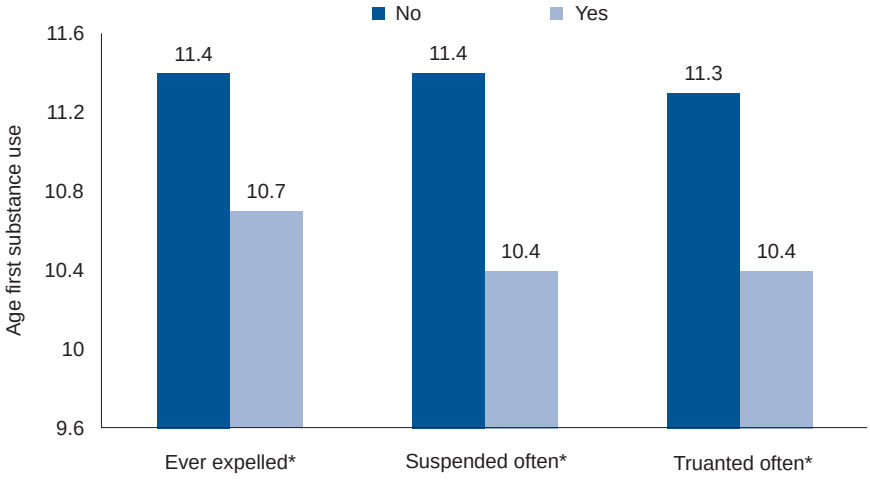
Table 6.5: Mean age of first substance use, by school grade completed

	Grade 3-6	Grade 7-9	Grade 10-12
Age first substance use (mean)	9.4	11.1	12

* Statistically significant, ANOVA, f<0.05

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file], n=371.

Figure 6.10: School history, by age of first substance use



* Statistically significant, ANOVA, f<0.05

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file], n=371.

Summary

The juvenile detainees interviewed in this study had faced a number of serious difficulties in their childhood and adolescence:

- about one third had endured violent or emotional abuse, and one fifth had been left alone for long periods as a child;
- 42 per cent of youths were not living with their parents at the time of their last offence;
- two thirds of youths reported that a member of their family was abusing substances while they were growing up;
- one in ten youths did not continue their education past grade six, while 75 per cent ended their education in grade seven, eight or nine;

- what little schooling the youths did complete was punctuated by very high rates of truancy, and almost half of juveniles were suspended often; and
- six out of ten youths had been expelled from school.

These features of the youths' life experience seemed to be highly interrelated with their own substance abuse and criminal behaviour:

- regular violent offenders had suffered more abuse and neglect than regular property offenders, and the latter reported higher rates of abuse than the non-regular offenders;
- neglect and violent abuse was associated with an earlier onset of substance use;
- youths who had been abused were less likely to have been living with their parents at the time of their last offence;
- not living with parents significantly increased the risk of becoming a regular offender and a poly substance user;
- juveniles who reported family substance abuse began using substances at an earlier age, and were more likely than other youths to become weekly or daily users;
- regular offenders reported significantly higher rates of truancy and suspension than non-regular offenders;
- regular violent offenders had been expelled more often than other offenders; and
- early onset of substance use was associated with leaving school early and high rates of expulsion, suspension and truancy.

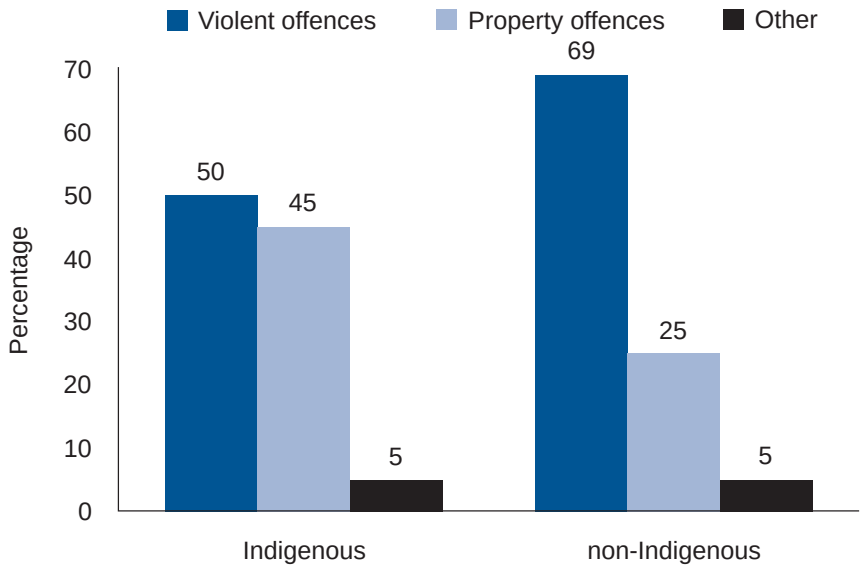
7 Indigenous offenders

The overrepresentation of Indigenous Australians in the prison system is a well documented problem. One quarter of the participants in the adult DUCO studies self-identified as Aboriginal or Torres Strait Islander, despite the fact that these groups constitute only two per cent of the nation's population (ABS 2004; Johnson 2004; Makkai & Payne 2003). The situation is even worse in Australian juvenile detention centres. Although rates of detention have declined overall in recent years, Indigenous youths still account for about half of all detainees. This means that an Indigenous youth has 19 times the chance of being sentenced to detention than a non-Indigenous youth (Charlton & McCall 2004). Six out of every 10 youths interviewed in the juvenile DUCO study were Indigenous (n=218).

History of offending

The offences for which Indigenous youths were sentenced to detention differed from non-Indigenous youths. Figure 7.1 illustrates the most serious offence categories by Indigenous status. More than two thirds of non-Indigenous youths reported a violent offence as their most serious charge, compared with 50 per cent of Indigenous youths. This difference was highly statistically different (p<0.01). Figure 7.2 gives further detail of all the offences for which the youths were detained.

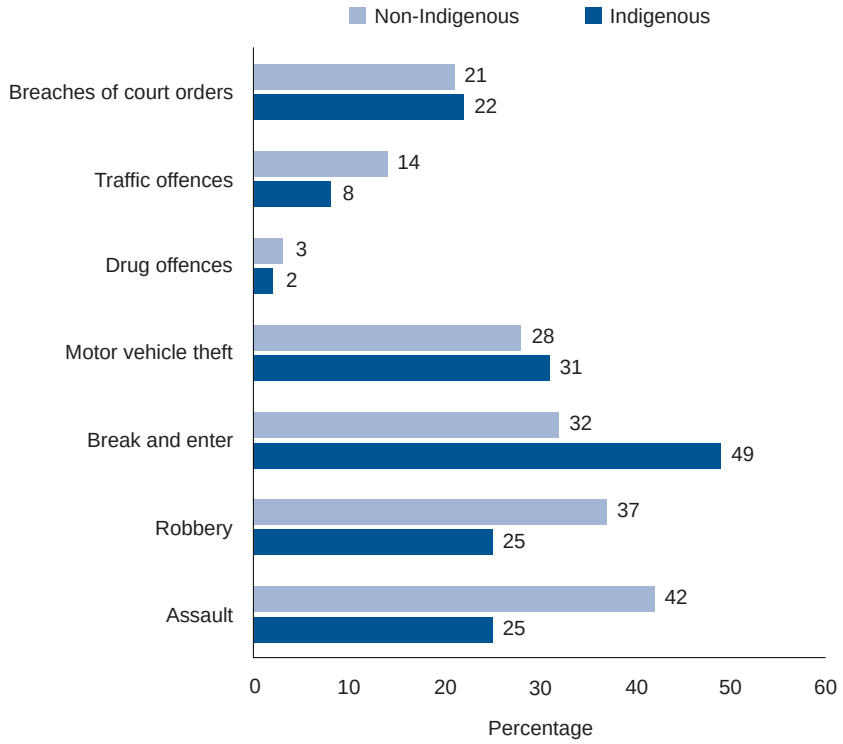
Figure 7.1: Most serious charge for current detention, by Indigenous status



Statistically different, chi square, p<0.01

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file], Indigenous youths n=218, non-Indigenous youths n=153.

Figure 7.2: Main charges for current detention, by Indigenous status



Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file], Indigenous youths n=218, non-Indigenous youths n=153.

The most important differences between the groups relate to burglary, robbery and assault:

- half of the Indigenous youths reported being detained for burglary charges, compared with one third of non-Indigenous youths;
- 42 per cent of non-Indigenous youths had an assault charge and 37 per cent had a robbery charge; and
- 25 per cent of Indigenous juveniles had been detained for assault or robbery.

These trends are mirrored in the youths' self-reported lifetime offending patterns. Table 7.1 presents the juveniles' reported rates of ever and regularly committing offences. Ninety-two per cent of Indigenous youths had committed burglary at least once, and seven out of 10 identified themselves as regular burglars. The rates were noticeably lower for non-Indigenous juveniles: 78 per cent had tried burglary and 57 per cent burgled on a regular basis. Chi squared analysis indicated that the difference in ever committing burglary was significant at the 0.01 level.

Another highly significant difference related to rates of assault ($p<0.01$), namely that more non-Indigenous participants reported ever assaulting another person (84%) than Indigenous participants (65%). To reverse these figures, this means that of the non-Indigenous offenders, 16 per cent had never assaulted another person compared with 35 per cent of Indigenous youths. However, rates of regular assault were similar, as were escalation rates. This indicates that Indigenous youths who commit assault once are just as likely as non-Indigenous juveniles to progress to regular violent behaviour. Differences in rates of robbery were less apparent, although the Indigenous adolescents reported slightly lower levels of ever robbing and regularly robbing.

Table 7.1: History of offending, by Indigenous status

	Indigenous			Non-Indigenous		
	Ever	Regular	Escalation[1]	Ever	Regular	Escalation[1]
	%	%	%	%	%	%
Property offences	**99**	**89**	**90**	**97**	**86**	**89**
Vandalised property	77	36	47	84	37	44
Motor vehicle theft	83	43	52	76	43	57
Break and enter	92	71	77	78	57	73
Stealing without break-in	81	56	69	82	58	71
Traded in stolen goods	75	53	71	75	58	77
Fraud, forgery	26	7	27	27	7	26
Violent offences	**79**	**33**	**42**	**91**	**38**	**42**
Physical assault	65	28	43	84	31	37
Robbery	52	14	27	60	20	33
Drug offences	**90**	**79**	**88**	**84**	**77**	**92**
Bought illegal drugs	88	78	89	82	74	90
Sold illegal drugs	50	33	66	62	42	68
Total	**100**	**95**	**95**	**100**	**92**	**92**
(n)	(218)			(153)		

[1] Escalation is the percentage of those who ever committed the crime who became regular offenders.

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

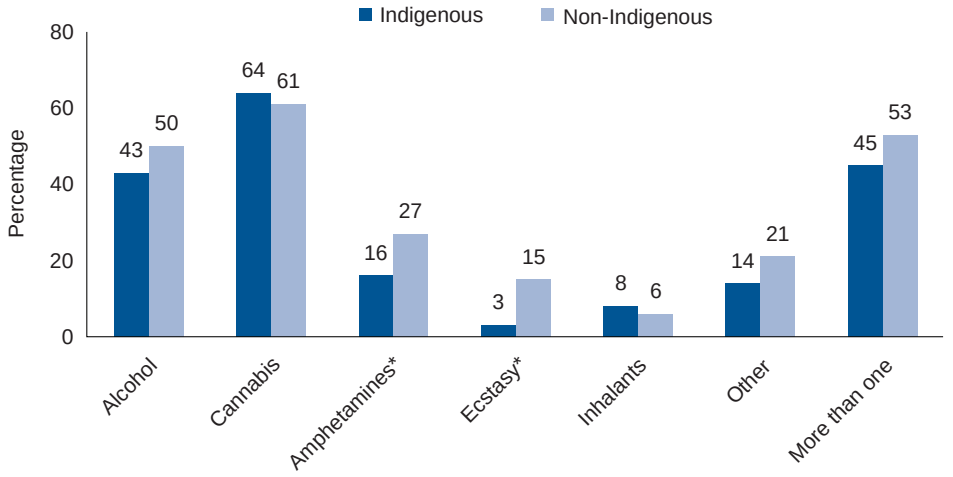
While it cannot be categorically stated that the Indigenous youths were typically less violent offenders, it is interesting to note the disparity between these findings and those of the adult male study. Makkai and Payne (2003) found that Indigenous participants were overrepresented among the most violent categories of offenders.

Prevalence of drug use

For the most part, the two groups of juveniles displayed similar substance-using patterns. Rates of substance use were slightly higher among non-Indigenous youths for all substances except cannabis and inhalants (see Figure 7.3). The only statistically significant differences lay with use of amphetamines and ecstasy:

- 27 per cent of non-Indigenous participants had tried amphetamines, compared with 16 per cent of Indigenous youths; and
- five times as many non-Indigenous youths had tried ecstasy.

Figure 7.3: Prevalence of substance use, by Indigenous status



* Statistically significant, chi square, p<0.05
Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file], Indigenous n=218, non-Indigenous n=153.

It is possible that these data are reflective of environmental factors. The DUCO juveniles survey did not ask the participants whether they lived in a city or a rural area, for instance. However, if a substantial portion of the Indigenous youths came from rural areas, it may be that they simply did not have access to amphetamines or ecstasy. Further analysis indicated that the groups were similar in the frequency with which they used substances. As displayed in Table 7.2, Indigenous and non-Indigenous youths were just as likely to be using a substance on a daily basis. Nor did the rates of poly substance use in the six months prior to their arrest differ significantly.

Table 7.2: Frequency of substance use, by Indigenous status

	Indigenous	Non-Indigenous
	%	%
Daily substance use	17	16
Regular poly substance use	45	53
Total	100	100
(n)	(218)	(153)

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

These findings present further differences from the results of the adult male DUCO project. That research indicated that the adult Indigenous males had less serious substance abuse behaviours than non-Indigenous males (Makkai & Payne 2003). In particular, 22 per cent Indigenous adult males reported that regular poly substance had occurred at some stage of their life, compared with 40 per cent of non-Indigenous offenders.

Links between substance use and crime

One of the important goals of Chapter 4 was to attempt to quantify the amount of juvenile crime that was caused by substance use. The method used, which is described in more detail in that chapter, is based on juveniles' open-ended explanations of why they committed their last offence, reports of whether they were intoxicated (drunk or high) at the time of their last offence, and whether they were daily substance users in the six months before their offence.

Essentially, to attribute substance use as the cause of a juvenile's offence, they must have first pointed to substance use in their open-ended explanation. The juvenile then needed to have reported being either intoxicated at the time of the offence or a daily substance user. The outcomes of the model attributions for Indigenous and non-Indigenous youths are displayed below (Table 7.3).

Table 7.3: Model attributions for daily use and intoxication, by Indigenous status (per cent)

	Indigenous (n=218)	Non-Indigenous (n=153)
No attribution	65	71
Attribution		
Daily use	4	1
Intoxicated	6	9
Both	25	19
Total	100	100

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

In total, 35 per cent of the offences for which Indigenous youths were detained could be attributed to substance abuse. Within this cohort, the most common outcome was that the juveniles had indicated substance abuse in their explanation of their offence, were intoxicated at the time of the offence and were daily substance users (25%).

The results for non-Indigenous juveniles differed slightly, but this difference did not approach statistical significance (p=0.18). Twenty-nine per cent of the offences that resulted in the detention of non-Indigenous youths are estimated to have been caused by substance abuse. Again, the bulk of these offences incorporated both intoxication and daily substance use (19%).

Temporal order of substance use and crime

So far, the results have suggested that the criminal careers of Indigenous detainees tend to incorporate higher levels of burglary and lower levels of assault than non-Indigenous youths, although the substance use behaviours of the two groups are relatively similar. Are there any distinctions to be made in terms of the life trajectories of non-Indigenous and Indigenous youths? Temporal analysis of the average ages at which events typically occurred indicate few substantial differences between the two groups (Table 7.4). It should be noted that the table only presents data from those juveniles who became regular offenders or regular substance users. For example, the figures relating to vandalism are based only on youths who reported becoming regular vandals. Likewise, results on alcohol draw on regular alcohol users only.

Table 7.4: Mean age of offending and substance use, by Indigenous status

	Indigenous (n=218)			Non-Indigenous (n=153)		
	First	Regular activity	Difference in years	First	Regular activity	Difference in years
Property offenders	**10.7**	**12.4**	**1.7**	**10.9**	**12.7**	**1.8**
Vandalism	11.5	12.6	1.1	11.8	13.3	1.5
Steal without break-in	11.4	12.4	1.0	11.3	12.6	1.3
Break and enter	12.0	13.3	1.3	12.6	13.6	1.0
Motor vehicle theft	12.5	13.5	1.0	13.1	14.1	1.0
Traded in stolen goods	12.9	13.6	0.7	13.1	13.8	0.7
Fraud	13.1	14.2	1.1	13.5	13.7	0.2
Violent offenders	**12.7**	**13.1**	**0.4**	**12.6**	**13.3**	**0.7**
Assault	11.7	13.2	1.5	11.7	13.1	1.4
Robbery	12.5	13.3	0.8	13.3	14.0	0.7
Drug offenders	**12.4**	**13.1**	**0.7**	**12.3**	**13.3**	**1.0**
Bought drugs	12.6	13.5	0.9	12.7	13.5	0.8
Sold drugs	13.9	14.2	0.3	14.3	14.5	0.2
Drug and alcohol use	**11.0**	**12.7**	**1.7**	**10.3**	**11.7**	**1.4**
Alcohol	12.3	14.2	1.9	11.7	13.9	2.2
Cannabis	11.9	13.3	1.4	11.7	13.1	1.4
Amphetamines	13.7	14.2	0.5	13.9	14.7	0.8
Ecstasy	13.3	14	0.7	13.9	14.6	0.7
Inhalants	12.6	13.1	0.5	14.1	14.6	0.5

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

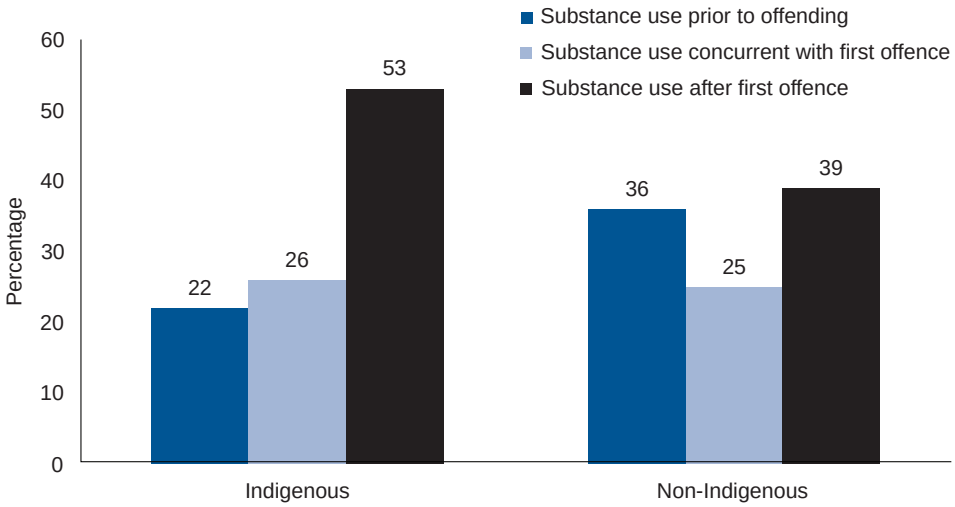
Indigenous youths who became regular burglars progressed to regular offending at an earlier age than their non-Indigenous counterparts. This pattern was more marked with regard to robbery, although it should be recalled that fewer Indigenous detainees had been sentenced for robbery or had self-reported committing robberies (see Figure 7.2 and Table 7.1). Youths of Indigenous descent who had tried fraud took over a year to progress to regular fraud. In contrast, the development of regular fraud occurred very shortly after the first fraud offence for non-Indigenous juveniles.

Regarding substance use, non-Indigenous young people reported an earlier age of onset overall, and an earlier progression to regular substance use. However, both groups were similar in terms of the average time-lapse from first use to regular use. Perhaps the most noticeable differences lay in respect of inhalants:

- Indigenous youths first used inhalants an average of 18 months before non-Indigenous youths; and
- regular inhalant use by Indigenous youths occurred at the age of 13, whilst non-Indigenous juveniles did not do so until they were aged 14 and a half.

Across the entire sample, including regular and non-regular offenders/substance users, an interesting trend was found between youths of different Indigenous status. Indigenous youths were more likely than non-Indigenous youths to have begun criminal behaviour before their first substance use (Figure 7.4).

Figure 7.4: Temporal order of substance use and crime, by Indigenous status



Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

Conversely, substance use preceded offending for one in three non-Indigenous juveniles compared with one in five Indigenous juveniles. This finding supports the suggestion made earlier in this chapter that substances appear to play a more important role in the criminal careers of non-Indigenous juveniles than they do for Indigenous juveniles. One interpretation of these data is that substance use may have played a greater role in the criminal careers of non-Indigenous youths than it did for the Indigenous youths. That is, if first substance use preceded criminal behaviour, it may have contributed to the onset of criminal behaviour. Similarly, the onset of regular substance use potentially exacerbated offending patterns towards regular property offending and violence.

Risk factors for substance abuse and offending

Chapter 6 described in detail the risk factors present in the lives of the young people who participated in the DUCO study. Indigenous and non-Indigenous participants alike reported having troubled educational histories in addition to reporting high rates of abuse, neglect and family substance use. However, the groups were dissimilar in three main respects (Table 7.5). First, Indigenous youths reported higher rates of family substance abuse. This difference was unrelated to substance abuse by fathers or stepfathers. Instead, Indigenous youths differed because they:

- were about twice as likely to report that their siblings abused substances; and
- indicated markedly higher levels of maternal substance abuse (including stepmothers).

Table 7.5: Personal history, by Indigenous status

	Indigenous	Non-Indigenous
	%	%
Family substance abuse	**72**	**59***
Mother/stepmother substance abuse	39	24*
Father/stepfather substance abuse	43	42
Sibling substance abuse	36	19*
Living with parents	59	53
Childhood abuse		
Neglect	18	18
Physical abuse	21	37*
Emotional abuse	30	43*
School history		
Highest grade – primary school	12	10
Highest grade – 7-9	77	74
Often truant	26	55*
Often suspended	34	58*
Ever expelled	53	68*
(n)	(128)	(342)

* Statistically significant, chi square, $p<0.05$

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

Despite the fact that family substance abuse occurred more frequently in their homes, Indigenous young people were less likely to report having suffered physical or emotional abuse. In particular, more than one third of non-Indigenous adolescents appear to have experienced violent abuse compared with one fifth of the Indigenous youths.

Additionally, non-Indigenous detainees had more turbulent educational backgrounds. They reached the same level of education as the Indigenous youths. However, non-Indigenous juveniles reported truancy at twice the rate of their Indigenous counterparts. Rates of suspension and expulsion from school were also considerably higher among non-Indigenous participants.

Summary

Indigenous males in the adult DUCO study were distinguishable from non-Indigenous offenders because they tended to be violent offenders and self-reported less serious habitual substance abuse (Makkai & Payne 2003). Neither of these outcomes was reflected in the final DUCO study of adolescents. Indigenous youths were not especially violent offenders. In fact, far fewer Indigenous youths had been detained for violent charges. Indigenous youths were also less likely to have ever assaulted another person.

Burglary seemed to be the offence that characterised the Indigenous juveniles' criminal careers. Half of the Indigenous youths had been detained for burglary. Compared with the non-Indigenous participants, Indigenous young people self-reported significantly higher rates of regular burglary.

Parallels can be drawn between the substance using behaviours of Indigenous and non-Indigenous youths. They reported using alcohol, cannabis and inhalants at similar levels. Additionally, the two groups had comparable levels of daily use and regular poly substance use. Finally, and perhaps most importantly given the aims of this study, it was estimated that similar levels of crime perpetrated by Indigenous and non-Indigenous youths could be causally attributed to substance use.

However, non-Indigenous youths used amphetamines and ecstasy at significantly higher levels than Indigenous youths. On the other hand, Indigenous youths began regularly using inhalants at a much younger age. There were also some indicators that substances played a slightly different role in the criminal careers of Indigenous and non-Indigenous youths, appearing to have a more important influence on the latter.

Regarding risk factors, although family substance abuse was reported at higher rates amongst the Indigenous adolescents, the non-Indigenous youths appear to have suffered more widespread child abuse. Similarly, they reported more turbulent educational backgrounds.

Conclusions

This report is an important step forward in deepening our understanding of the impact alcohol and drugs have on young Australians and their offending behaviour. For some years, the National Drug Strategy Household Survey has provided snapshots of substance use among youths in the general population (AIHW, 2005). This DUCO juvenile study also represents a snapshot of juveniles in detention, although it has focused on a sub-group of the country's youths, that is, those aged 10 to 17 years who were sentenced to, or remanded in, detention in all jurisdictions between December 2003 and December 2004. As noted, these youths probably represent the most chronic substance abusers and offenders in their age bracket.

At first glance the detainees appeared heterogeneous, in that the majority of youths had experimented with most substances and committed most types of crime once. The distinguishing features of the youths' criminal behaviour revolved around the frequency with which they offended. Where high frequency offending is indicative of serious criminality, three main categories of offenders were evident. The least serious were the minority of youths who did not commit any crimes regularly. More serious offenders were those who reported regularly committing property crime. The most serious were the juveniles who, generally in addition to committing regular property crime, regularly engaged in violent crime.

Regarding alcohol and drugs, the detainees' experience with substance abuse dwarfed that of adolescents in the general population. Although it was not possible to confidently gauge levels of substance dependency amongst the juveniles, two thirds of the detainees interviewed were using a substance once or several times a day in the six months before they entered detention. Twenty-nine per cent of youths were regular poly substance users. Importantly, high frequency use of any substance, including alcohol, was found to be closely interrelated with criminal behaviour. Regular offenders (of property and/or violent crime) were more than twice as likely to regularly use substances as non-regular offenders. Conservative estimates suggest that 33 per cent of juveniles were detained for offences caused by their substance abuse.

The youths generally reported beginning substance use and all types of crime between the ages of 10 and 13. The regular violent offenders reported the earliest initiation into substance use, followed by regular property offenders and non-regular offenders; early substance use seems closely related to seriousness of offending. Across the entire group it was difficult to find evidence of a causal stepping stone from substance abuse to crime, or vice versa. However, when the juveniles were analysed according to their Indigenous status, it appeared that substance abuse had an effect on the criminal careers of the non-Indigenous youths. In particular, regular substance use clearly preceded violent offending and regular property offending for this group.

The detainees interviewed had typically faced multiple risk factors in their lives, ranging from abuse in the home and exposure to substance abuse by their family through to short and

troubled educational backgrounds. These risk factors were associated with the seriousness of offending. For instance, regular violent offenders reported the highest rates of abuse and neglect in addition to rates of expulsion from school. Early substance use was another clear risk factor; regular offenders were twice as likely as non-regular offenders to have started using substances before grade seven.

Findings from this study underscore the importance of early intervention. Perhaps the most important results are that, generally, the earlier that young people first use substances and engage in crime, the worse their criminal and substance using behaviours will become. The range of the problems associated with juvenile substance use and crime also points to the need for whole-of-government approaches, engaging agencies commonly working outside the criminal justice system including:

- family services;
- parent support and mentoring;
- child abuse and domestic violence treatment;
- housing services; and
- education systems.

Harm reduction strategies and treatments for young people post-release from detention centres could be oriented towards reducing the frequency with which juveniles use substances, especially on a daily basis. Poly-substance use should also be a key concern. Preventing or reducing these behaviours would have positive implications for juvenile crime. The development of effective interventions to reduce alcohol and drug use in juvenile populations would be of value to future research in this area.

Technical appendix

The data presented in this report are based on interviewer-administered questionnaires with juvenile detainees. Participation in this study was voluntary and informed consent was obtained. Two jurisdictions stipulated that parental consent also be obtained. The interviews were conducted between December 2003 and December 2004 in all states and territories.

Methodology

Sampling

In comparison with adult male prisons, Australian juvenile detention centres accommodate very small numbers of young people. For this reason, a census of the detainees was attempted in all jurisdictions. In addition to youths who had been sentenced to detention (n=200), juveniles on long-term remand participated (n=171). Several young people were excluded from participating because: they were incapable of giving informed consent; they were identified as being emotionally or psychologically vulnerable to participation; they represented a potential danger to themselves or others; or they were non-English speaking.

Content of the questionnaire

The main sections of the questionnaire asked the juveniles about their:

- socio-demographic background (Indigenous status, age, education, parental status and living arrangements);
- home environment, including family substance abuse, their history of abuse and neglect and current levels of contact with significant others;
- mental and emotional wellbeing;
- current charges;
- previous and current periods of detention;
- criminal history for 10 offence categories;
- patterns of use for seven categories of substances;
- treatments received for substance use; and
- perceptions of the criminal justice system.

Interview procedure

In the days preceding the data collection at each detention centre, announcements were made to the juveniles about the general nature of the research project and the voluntary basis of participation. Senior detention centre staff determined which youths would be eligible to participate, giving consideration to age, capacity to consent, psychological and emotional wellbeing, prior history of physical violence, and their English language abilities. In the two jurisdictions where parental consent was required, one refusal from parents caused the youth to be designated as ineligible for participation.

Detention centre staff approached the eligible detainees and informed them that a researcher would like to conduct an interview. If the youths indicated that they wanted to know more about the interview, they were accompanied to the interviewer who read a standard statement seeking the juveniles' informed consent. The staff remained within close proximity to the interview room without invading on privacy. Interviewers were also provided with personal alarm systems for their safety.

At set junctures of the interview, the participants were reminded that they could terminate the interview at any stage. They were also asked to reconfirm their consent periodically. Detention centre staff were not allowed to read the completed questionnaires, nor were they able to peruse a blank questionnaire. All materials were kept in briefcases or other containers while interviewers were on detention centre premises. The containers were removed at the conclusion of the daily data collection period. Over the duration of data collection in each jurisdiction, the completed questionnaires were stored in a lockable cabinet in the possession of the chief data collector. As the interviews were concluded in each state and territory the questionnaires were posted to the AIC, where the data entry process was overseen.

Informed consent

Given the explicit and sensitive nature of the information collected in this study, participants were afforded a measure of protection that meant they were not required to provide written (signed) consent. Instead, prior to the commencement of the interview, a descriptive statement was read to each participant that explained the scope and nature of the study and required offenders to provide verbal consent to participate. The introductory statement was designed in such a way to ensure that all participants understood that:

- the information collected from the interview would be held in the strictest of confidence;
- the interviewer may be required to breach confidentiality if the participants gave details of abuse they had suffered or serious offences they had committed for which they had not been charged;

- their participation was voluntary;
- they could not be individually identified in any published material;
- they could choose not to answer any question; and
- the interview could be terminated at any time.

Confidentiality

To guarantee confidentiality, a number of steps were taken so that neither the AIC nor the jurisdictional corrective services agency could identify individual participants and their responses. To ensure this, the contracted data collector applied a unique identifier to questionnaires. Then, as part of the data processing conducted at the AIC, another unique identifier was applied to each participant so as to further disguise identification.

Reliability of estimates

The response rate for the completion of the survey was 87 per cent (see Table A.1). Interviewers across Australia approached a total of 534 youths and, of these, 467 agreed to participate. The Northern Territory and the Australian Capital Territory had the highest response rates (100%) and Western Australia had the lowest (74%). Response rates in Western Australia were affected by difficulties associated with locating parents or guardians to provide consent. Numbers in the Victorian centres were lower than expected. Detention centre staff suggested this may have been partly caused by the fact that the Victorian interviews were conducted in the days prior to Christmas holidays when court referrals lessen.

Table A.1: Response rates and age, by jurisdiction

	NSW	TAS	NT	SA	WA	QLD	ACT	VIC	Total
Number approached for an interview	231	17	15	48	113	77	7	26	(534)
Number completed an interview	216	16	15	47	85	73	7	23	(482)
Number of interviews declared eligible by AIC	205	16	15	47	84	72	7	21	(467)
Completed eligible response rate (per cent)	**(89)**	**(94)**	**(100)**	**(98)**	**(74)**	**(94)**	**(100)**	**(81)**	**(87)**
Participants aged over 17 years (excluded)	72	2	–	2	4	6	–	9	95
Final sample aged 10-17 years	**132***	**14**	**15**	**45**	**80**	**66**	**7**	**12**	**371**

*One participant, aged 9, was excluded.

Source: Australian Institute of Criminology, DUCO Juvenile Survey 2005 [Administrative File].

A total of 95 participants were young adults, aged 18 or over. One participant from New South Wales was excluded because he was nine years old.

Table A.2 compares the DUCO juveniles sample with the participating jurisdictions.

Table A.2: Comparison of the juvenile detainee population, aged 10-17, in National Census and DUCO sample (percentages)

	NSW	TAS	NT	SA	WA	QLD	ACT	VIC	Total
Detainee population (at 30/05/03)									
Age									
10-14	15	32	0	17	15	9	26	4	13
15-17	85	68	100	83	85	91	74	96	87
Total	100	100	100	100	100	100	100	100	100
Sex									
Female	7	11	0	14	10	11	13	7	9
Indigenous status									
Indigenous	44	100	69	41	68	42	100	80	53
DUCO sample									
Age									
10-14	11	43	7	29	8	12	14	8	14
15-17	89	57	93	71	92	88	86	92	86
Total	100	100	100	100	100	100	100	100	371
Sex									
Female	7	22	0	4	10	3	14	0	7
	(n=9)	(n=3)	–	(n=2)	(n=8)	(n=2)	(n=1)	–	(n=25)
Indigenous status									
Indigenous*	55	64	87	33	84	55	29	25	59
	(n=73)	(n=9)	(n=13)	(n=15)	(n=67)	(n=36)	(n=2)	(n=3)	(n=218)

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file], n=371; Charlton & McCall, 2004.

The participants in the present study are representative of Australian juvenile detainees in terms of their age brackets: 13 per cent of the DUCO sample was aged 14 or less, and the national average figure as at 30 May 2003 was 14 per cent. Overall, the sample was also representative in respect to the sex of the detainees; females accounted for seven per cent of the DUCO sample and nine per cent of national detainees. However, the DUCO sample encompassed a higher proportion of Indigenous youths than were recorded nationally in June 2003, with rates at 59 per cent and 53 per cent respectively.

Weighting

As a result of over-sampling Indigenous juvenile detainees, it was possible that the drug use and offending comparisons between Indigenous and non-Indigenous youths were biased and did not accurately represent the general juvenile detainee population estimates. To examine this issue, the DUCO juvenile data were weighted so that the relative estimates were equivalent to the proportions seen in the national census of juveniles in detention (Charlton and McCall 2004). The data were weighted for age, Indigenous status and jurisdiction.

The differences seen between the Indigenous and non-Indigenous juveniles in this study held true after the application of the population probability weightings. This indicates that although over-sampled, the differences seen in this report are likely to hold true for the juvenile detainee population as a whole.

Given that the DUCO juvenile study was not a national census of juveniles in detention, the results presented in this report are unweighted.

Limitations of the study

A core component of the DUCO juveniles questionnaire required youths to provide sensitive information on the extent of their offending and illegal drug use, as well as their personal experiences of neglect, physical and emotional abuse. Much of the information provided by participants is in relation to activities that may not have been detected by law enforcement agencies, or disclosed to anyone else prior to the interview. Given the nature and content of this information, the DUCO project, like all projects of this nature, is limited to the extent to which the self-reported information is reliable.

In the field of criminology, research has shown that self-reported offending by adult prisoners is generally reliable, and that self-reported criminal histories are consistent with official records (Peterson et al. 1980). With respect to the accuracy of disclosures of illegal drug use, the DUMA project has established that a high degree of consistency exists between drug use reported in interviews and the detection of drug use in urinalysis (Milner et al. 2004), and that detainees with higher socio-economic status were most likely to underreport drug use (McGregor & Makkai 2003). However, findings are more erratic in regards to juveniles. Comparing self-reported substance use with urinalysis in Canadian adolescents, Williams and Nowatzki (2005) found that a quarter of juveniles underreported substance abuse. Strangely, one third overreported – that is, they self-report using substances but their urinalysis was negative. Williams and Nowatzki (2005: 299) concluded that self-reported substance use amongst juvenile samples appears to have only 'fair validity'.

These findings suggest that the potential limitations of sel-report studies listed in the adult DUCO reports (Makkai & Payne 2003; Johnson 2004) may be of greater importance to the present study. The potential limitations referred to in the adult DUCO studies related to accuracy of memory recall, willingness to report sensitive or private experiences, and anticipated benefits of participation in terms of early release or other privilages.

There are other issues that need to be recognised that are germane in the juvenile setting. Commentators have pointed to the deficiencies that young people in the justice system may have with oral communication, such as formulating a 'coherent account of events' relating to their own offending (Snow & Powell 2004: 224). A related issue is the temptation to exaggerate substance use or criminal behaviour, apparently to impress or to shock

interviewers, or perhaps with the general hope of standing out as special. Interviewers in DUCO noted that youths occasionally stressed their own excesses with pride (see further Ogilvie & Lynch 2001). Finally, it is true that juveniles have the benefit of recalling events that have generally occurred recently compared with the events recalled by adult offenders. On the other hand, commentators have underscored some of the difficulties caused by immature cognitive, moral and social development when young people analyse their own criminal behaviour (Prichard & Burton-Smith 2004). This may mean juveniles' constructs of, for example, assault may not be in accordance with legal definitions of that crime, causing over-estimation in some cases and under-estimation in others.

Measuring drug and alcohol dependency

The juvenile participants were not assessed clinically in terms of alcohol or drug dependency. The juvenile survey included the same dependency scale used in adult female DUCO (Johnson 2004). That scale presents six questions separately for alcohol and drugs. The questions are as follows.

In the six months before being arrested, did:

- you spend more time drinking alcohol/using drugs than you intended;
- you NOT do things you should have because of drinking or using drugs;
- you want to cut down your drinking or drug use;
- anyone complain or worry about your use of alcohol/drugs;
- you often find yourself thinking about drinking/using drugs; or
- you drink/use drugs because you were bored, angry or to make yourself feel better.

Table A.3 lists the youths' responses to these questions. The questions on drugs drew positive responses in 49-67 per cent of cases. Positive responses to the questions on alcohol were less frequent, ranging from 28 per cent to 54 per cent.

Table A.3: Positive responses to dependency scale

	Alcohol %	Drugs %
In the 6 months before being arrested did…		
you spent more time drinking alcohol/using drugs than you intended?	28	49
you NOT do things you should have because of drinking or using drugs?	38	50
you want to cut down your drinking or drug use?	39	50
anyone complain or worry about your use of alcohol or drugs?	41	55
you often find yourself thinking about drinking or using drugs?	42	59
you drink/use drugs because you were bored, angry or to make yourself feel better?	54	67

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file], n=371.

The six-item scale was developed by Hoffman et al. (2003) with a cohort of incarcerated adult males and females. According to Hoffman et al. (2003), positive answers to three or more of the items is indicative of dependence on alcohol or drugs.

Basic tests confirmed that the items were internally consistent within the adult female DUCO sample (Johnson 2004). Similar results were obtained with the juveniles. Factor analysis suggested that all items loaded on one factor and the factor accounted for 50 per cent of variance in the alcohol items and 51 per cent of the items relating to drugs. All six items correlated well for alcohol (Cronbach's alpha of .79) and drugs (.81). The results indicate that the questions used in the juvenile survey are measuring a common construct. Whether this construct is actually substance dependence will be discussed shortly.

According to Hoffman et al.'s (2003) scale:

- 62 per cent of the DUCO youths meet the criteria for dependency on one or more substances;
- 48 per cent of youths meet criteria for alcohol dependency, and 66 per cent for drug dependency; and
- 81 juveniles (22%) meet the criteria for both alcohol and drugs.

There are reasons to be concerned about the applicability of Hoffman et al.'s (2003) scale for the juvenile population. Firstly, the scale was developed with the participation of 310 male and female adult prisoners and has not been tested upon a juvenile sample. Secondly, it is not clear how suitable some of the questions are for adolescents. For instance, while it

may be significant for someone to complain to an adult about their use of alcohol or drugs, parents and guardians frequently complain to their teenage children about many aspects of their lives. Similarly, responsibilities that a juvenile failed to uphold because of alcohol or drugs might include weekend homework or household chores. Responsibilities of an adult, on the other hand, are more likely to include such things as paying bills, grocery shopping or going to work.

These issues could be overlooked, had previous empirical research produced clear estimates of the rates of dependency or addiction amongst juveniles (either in the general population or within detention centres). However, unlike the area of addiction amongst adults, no such evidence exists to date on adolescent dependence. A number of studies have assessed samples of young people (some being adults) using various instruments based on the Diagnostic and Statistical Manual (DSM), versions III and IV:

- from a sample of 1829 American juvenile detainees, almost half met DSM III-R criteria for substance abuse disorders in relation to one or more substances (McClelland et al. 2004);
- Lennings and Pritchard (1998) used the Alcohol Use Disorder Identification Test (AUDIT), which is designed to detect hazardous alcohol use. Seventy-one per cent of the 118 Queensland juvenile detainees met criteria for hazardous alcohol use;
- in Australia, of 1601 young adults in the general population (20 to 21 years) seven per cent met DSM-IV criteria for cannabis dependence (Degenhardt et al. 2002; Coffey et al. 2002); and
- of 2000 young Australians in the general population (20 to 21 years), 4.7 per cent met DSM-IV criteria for alcohol dependence (Bonomo et al. 2004).

Importantly, DSM-based instruments are not designed to detect dependence alone. Rather, their focus is more broadly upon disordered behaviour, which incorporates a number of constructs. For example, AUDIT measures frequency of alcohol consumption, dependency and social problems (Lennings & Pritchard 1998). Furthermore, factor analyses of the DSM-IV measurements also clearly indicate that the criteria do not discriminate dependency from frequency of use (Fulkerson et al. 1999).

A recent study of 4644 American arrestees and detainees aged 9 to 18 did not use any scale of dependency, but simply asked the youths if they had ever felt dependent on any substance (Yun Soo Kim & Fendrich 2002). Less than 10 per cent of the participants provided a positive response. This finding is difficult to reconcile with studies based on DSM criteria (McCelland et al. 2004; Lennings & Pritchard 1998). In fact, Lennings and Pritchard (1998: 151) themselves suggest that juvenile detainees, though they may abuse substances by using them frequently, are less likely to 'reflect' actual dependency because of their age.

That is, by virtue of being young the detainees have not had the opportunity to develop substance dependencies in the same way as adults.

The responses to the Hoffman et al. (2003) scale were compared with the rates of substance use self-reported by the detainees (Tables A.4 and A.5, below). The responses to the Hoffman et al. (2003) scale were split into three groups. Youths who scored 0-2 were classified as low risk of dependency, 3-4 as moderate, and 5-6 as high.

Table A.4: Risk of dependency, by frequency of alcohol dependence (percentages)

	Risk of dependency		
	Low	Moderate	High
Frequency of alcohol use			
Monthly or less	63	23	10
Weekly or more	33	49	44
Daily or more	4	28	46
(n)	(n=193)	(n=106)	(n=71)

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

Table A.5: Risk of dependency, by frequency of drug dependence (percentages)

	Risk of dependency		
	Low	Moderate	High
Frequency of drug use			
Monthly or less	57	9	2
Weekly or more	11	14	13
Daily or more	32	76	85
(n)	(n=122)	(n=118)	(n=130)

Source: Australian Institute of Criminology, DUCO Juvenile Survey, 2005 [computer file].

The Hoffman et al. (2003) scale correlated very highly with frequency of use for both alcohol and drugs ($p<0.01$).

In summary, it was decided not to use the dependency scale in analyses for this report and instead present frequency of use. The results of the scale indicated very high levels of alcohol and drug dependence among the detainees. However, the dependency scale was not generated with a juvenile sample. Currently, the literature on adolescent dependency is confused and does not provide a benchmark with which to compare these results. In factor analysis, it seemed the scale measured one consistent construct. However, it is not clear whether this factor is dependency. Indeed, the high correlations with frequency of use may indicate that, for juveniles, the construct that the scale measures is actually frequency of use.

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